

Internet Monitoring Action Project

iMAP Malaysia 2024 Internet Censorship Report

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About iMAP

The Internet Monitoring Action Project (iMAP) aims to establish regional and in-country networks that monitor network interference and restrictions to the freedom of expression online in 10 countries: Myanmar, Cambodia, Hong Kong, India, Indonesia, Malaysia, Philippines, Thailand, Vietnam and Timor-Leste. Sinar Project works with national digital rights partners in these ten countries. The project is done via Open Observatory Network Interference (OONI) detection and reporting systems, and it involves the maintenance of test lists and the collection and analysis of measurements.

More information is available at imap.sinarproject.org. Any enquiries and suggestions about this report can be directed to team@sinarproject.org

About Sinar Project

Sinar Project is a civic tech initiative that uses open technology, open data, and policy analysis to systematically make important information public and more accessible to the Malaysian people. It aims to improve governance and encourage greater citizen involvement in the nation's public affairs by making the Malaysian Parliament and Government more open, transparent, and accountable. More information is available at <https://sinarproject.org>.

How to use this report

This report provides an overview of the state of internet censorship in Malaysia. It is not meant to provide a comparison of measurements across countries or measurements among different website categories covered by the iMAP project.

Recommendations to audience:

- Learn about supporting evidence related to internet censorship in Malaysia by reviewing research and case studies.
- Understand the latest developments of internet censorship in the country, in terms of methods of blockings and the websites affected by censorship.
- Support or advocate for changes in laws and policies to improve internet freedom in Malaysia.
- Take action and get involved by spreading awareness, signing petitions, or joining initiatives that fight against internet censorship.

Abbreviations

ALDR	Alcohol and Drugs
ANON	Anonymization and Circumvention tools
ASN	Autonomous System Number
COMT	Communication Tools
CTRL	Control Content
CULTR	Culture
DNS	Domain Name System
COMM	E-commerce
ECON	Economics
ENV	Environment
FILE	File-sharing
GMB	Gambling
GAME	Gaming
GOVT	Government
HACK	Hacking Tools
HATE	Hate Speech
HOST	Hosting and Blogging Platforms
HUMR	Human Rights Issues
HTTP	Hypertext Transfer Protocol
IGO	Intergovernmental Organisations
ICCPR	International Covenant on Civil and Political Rights
iMAP	Internet Monitoring Action Project
IP	Internet Protocol
ISP	Internet Service Provider
MMED	Media Sharing
MISC	Miscellaneous Content
NEWS	News Media
DATE	Online Dating
OONI	Open Observatory Network Interference

POLR	Political Criticism
PORN	Pornography
PROV	Provocative Attire
PUBH	Public Health
REL	Religion
SRCH	Search Engines
XED	Sex Education
GRP	Social Networking
MILX	Terrorism and Militants
TCP	Transmission Control Protocol
TLS	Transport Layer Security

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Key Findings

- Pornography and gambling sites continued to be the category with the highest rate of blocking, similar to our findings in previous editions of the report.
- In the same period, more political criticism websites and critical news websites were blocked, such as Utusan TV and Malaysia Now, as well as Guang Ming Daily, although only for 2 days.
- LGBTQ-related websites continued to be blocked, such as the website of the dating app Grindr.

Background

Population	34 million ¹
Internet penetration (% of population using the internet)	98% (2024) ²
Mobile subscriptions (per 100 inhabitants)	44,894,800 (Q1 2024) ³
Freedom on the Net score (2024)	60/100; Partly Free ⁴
Religion (%)	Islam: 63.5%; Buddhism: 18.7%; Christianity: 9.1%; Hinduism: 6.1%; Atheism: 1.8%; Others: 0.9%. ⁵
ICCPR Ratification	No

Table 1: Summary of demographics of Malaysia

In 2024, the total population of Malaysia is estimated at 34 million, of which 30.6 million are citizens. The total population comprises 17.8 million males and 16.1 million females, which is a gender ratio of 111 males for every 100 females.⁶

¹ Department of Statistics Malaysia. (2024). *Demographic Statistics Malaysia, First Quarter 2024*. https://storage.dosm.gov.my/demography/demography_2024-q1.pdf

² Statista Research Department. (2024, January 30). *Internet penetration rate in Malaysia 2014-2029*. [Infographic]. Statista. <https://www.statista.com/statistics/975058/internet-penetration-rate-in-malaysia/> <https://www.dosm.gov.my/portal-main/release-content/82c59a73-8b80-11ed-96a6-1866daa77ef9>

³ Malaysian Communications and Multimedia Commission. (2023, June 20). *Facts and Figures - Interactive Dashboard*. <https://www.mcmc.gov.my/en/resources/statistics/facts-and-figures-interactive-dashboard>

⁴ Freedom House. (2024). <https://freedomhouse.org/country/malaysia/freedom-net/2024>

⁵ Department of Statistics Malaysia. (2023). *Kawasanku dashboard*, <https://open.dosm.gov.my/dashboard/kawasanku>

⁶ Department of Statistics Malaysia. (2024). *Demographic Statistics Malaysia, First Quarter 2024*. https://storage.dosm.gov.my/demography/demography_2024-q1.pdf

As a multicultural country, the major ethnic group of Malay and other Bumiputera comprised 70.1 percent out of the 30.6 million citizens, followed by the Chinese ethnic group at 22.6 percent, the Indian ethnic group at 6.6 percent, and other ethnic groups at 0.7 percent.⁷

The state of Selangor has the highest population composition at 21.6 percent, followed by Johor at 12.3 percent and Sabah at 11 percent. The population density is also different: Kuala Lumpur has the highest population density of 8,235 per square meter, followed by Putrajaya at 2,017, and Penang at 1,718 per square meter. The largest state, Sarawak, has the lowest with 20 people per square kilometer. This is followed by the third largest state, Pahang, at 45 people, and the second largest state, Sabah, at 48 people.⁸

Political Landscape

From 2018 to 2023, Malaysia was in a state of political instability as the country underwent four changes of government in a five-year period. Malaysia is currently under a new unity government led by the 10th Prime Minister, Anwar Ibrahim, who took office on 24 November 2022.

Since gaining independence in 1957, Malaysia has been ruled by the National Front (Barisan Nasional, also known as BN) coalition until 2018, when the Alliance of Hope (Pakatan Harapan, also known as PH) coalition took over after successfully gaining the majority of the seats during the 14th General Election. However, the PH administration lasted only 22 months and collapsed after many of its key members changed alliances, causing PH to lose its majority.

In March 2020, the National Alliance (Perikatan Nasional, PN) replaced the PH administration. It was led by Muhyiddin Yassin, the President of the Malaysian United Indigenous Party (Parti Pribumi Bersatu Malaysia, also known as BERSATU), a then-member of the PH coalition. This administration was also short-lived. After 17 months in office, Muhyiddin resigned in August 2021 due to instability within the PN coalition with the withdrawal of support from the United Malays National Organisation (UMNO), a PN-aligned party.

Following Muhyiddin's resignation, the Yang di-Pertuan Agong appointed a new Prime Minister in August 2022: Ismail Sabri, Vice President of the United Malays National Organisation (UMNO), a component party of the BN coalition. The selection process was by

⁷ Department of Statistics Malaysia. (2024). *Demographic Statistics Malaysia, First Quarter 2024*. https://storage.dosm.gov.my/demography/demography_2024-q1.pdf

⁸ Department of Statistics Malaysia. (2023, July 31). Current Population Estimates, Malaysia, 2023. https://www.dosm.gov.my/uploads/release-content/file_20230731104908.pdf

way of submission of Statutory Declarations from all the Members of Parliament on their respective choice of Prime Minister to and verified by the King.⁹

After 15 months in office, Ismail Sabri called for the Parliament to be dissolved in October 2022 to make way for the national general election. However, no single party or coalition gained the simple majority during the 15th national general election on 19 November 2022, resulting in a hung parliament for the first time in Malaysian history. After days of negotiations among political parties, Anwar Ibrahim successfully obtained support from BN, Sarawak Parties Alliance (Gabungan Parti Sarawak, also known as GPS), Heritage Party (Warisan), Malaysian United Democratic Alliance (MUDA), Parti Bangsa Malaysia, and other independent Members of Parliament to secure a simple majority support. He was sworn in as the 10th Prime Minister on 24 November 2023.

On 12 August 2023, [state elections were held](#)¹⁰ in six Malaysian territories: Selangor, Kelantan, Terengganu, Negeri Sembilan, Kedah, and Penang. These were the first elections held under the new government led by Anwar Ibrahim. Pakatan Harapan won in Selangor and, with a formed coalition with Barisan Nasional, won in Penang and in Negeri Sembilan. Perikatan Nasional won in Kelantan, Terengganu, and Kedah.

Following the elections, experts discussed the pivotal influence of [ethnic identity in shaping political shifts or transitions in Malaysia](#).¹¹ They argued that without intentional effort towards unity, Malaysia's political future could further exacerbate divisions. The election's outcomes underscore existing political divisions, indicating the need for political leaders to navigate these intricacies with commitment to the national interest. [A highly divided political climate](#)¹² obstructs productive discussions, suppresses opportunities for compromise, and fosters a mentality of division which fuels distrust and perpetuates societal rifts. This situation undermines the government's ability to tackle critical national challenges effectively.

⁹ Ismail Sabri sworn in as Malaysia's ninth Prime Minister. (2021, September 15). The Star.

<https://www.thestar.com.my/news/nation/2021/08/21/ismail-sabri-sworn-in-as-ninth-prime-minister>

¹⁰ *Malaysia's state election stalemate belies deeper issues for the Anwar administration* | East Asia Forum. (2023, September 26).

<https://eastasiaforum.org/2023/09/26/malaysias-state-election-stalemate-belies-deeper-issues-for-the-anwar-administration/>

¹¹ *Malaysia's Identity Politics Will Perpetuate Exclusivity If Left Unchecked*. (2023, December 20). FULCRUM.

<https://fulcrum.sg/malaysias-identity-politics-will-perpetuate-exclusivity-if-left-unchecked/>

¹² *Malaysia's Identity Politics Will Perpetuate Exclusivity If Left Unchecked*. (2023, December 20). FULCRUM.

<https://fulcrum.sg/malaysias-identity-politics-will-perpetuate-exclusivity-if-left-unchecked/>

Legal Environment

(No updates)

The Federal Constitution expressly guarantees the right to freedom of expression under Article 10.¹³ Under the objects of the Communications and Multimedia Act (CMA) 1998, it is expressly stated that the act does not permit internet censorship under Section 3(3). The Malaysian Government has also provided guarantees to companies with Malaysia Digital status [formerly known as Multimedia Super Corridor (MSC)], ensuring that the internet will not be censored under the Bill of Guarantees (BoGs), except for illegal, obscene, or indecent materials or any other actions that are deemed illegal in the physical world.¹⁴

Restrictions to freedom of expression online can be seen in Sections 211 and 233 of the CMA 1998, Sedition Act 1948, Penal Code, and Section 114A of the Evidence Act 1950.

Communications and Multimedia Act 1998

A bill was passed before the 15th national general election to amend the Communications and Multimedia Act 1998, but it is currently under review by the new unity government. Information about the specifics of the amendments is yet to be publicly revealed. The current Ministry of Communications and Digital is considering amendments that would allow the Malaysian Communications and Multimedia Commission (MCMC) to be given more powers and increase the penalty under Section 233.¹⁵

Sections 211 and 233 are applied to regulate offensive content on the internet that is deemed “indecent, obscene, false, menacing, or offensive in character with intent to annoy, abuse, threaten or harass any person”. Section 211 deals with the prohibition of provision of such offensive content, whilst Section 233 deals with the improper use of network service or application service to carry out such offence through communication. Both sections carry a maximum penalty of RM50,000 or imprisonment not exceeding one year, or both.

¹³ Malaysia Federal Constitution. <https://lom.agc.gov.my/federal-constitution.php>

¹⁴ Malaysia Digital Economy Corporation. The Malaysia Digital (MD) Bill of Guarantees. https://mdec.my/wp-content/uploads/MD-BoG-Explanatory-Notes_30-June-2022.pdf

¹⁵ Bernama. (2023, March 17). MCMC asked to review amendments to Communications and Multimedia Act. *The Star*. <https://www.thestar.com.my/news/nation/2023/03/17/mcmc-asked-to-review-amendments-to-communications-and-multimedia-act>

Sedition Act 1948

(No updates)

Section 4(1) covers a range of actions that reflect “seditious” tendency, including carrying out seditious actions or uttering seditious words and publishing or importing seditious publications. This section has been challenged to be unconstitutional and void in the past, but the Federal Court ruled otherwise. While not explicitly stated, it has been applied to online publications.¹⁶ In April 2022, Malaysian artist Fahmi Reza was investigated under Section 4(1) of the Sedition Act 1948 and Section 233 of the Communications and Multimedia Act 1998 over his satirical drawing posted online that depicted a cartoon ape in royal attire.¹⁷

Penal Code

(No updates)

Several sections of the Penal Code have been used in the past against online users for contents posted online. Notably, these include Section 298A for online contents alleged to be insulting Islam,¹⁸ Section 500 for criminal defamation over an online graphic resembling the then Health Minister Dr Adham Baba,¹⁹ and Section 505 for “statements conducing to public mischief” over a blog post written by an opposition party’s politician in criticism of the ruling government.²⁰

¹⁶ Lim, I. (2015, October 6). Federal Court rules Sedition Act constitutional, UM’s Azmi Sharom to stand trial. Malay Mail.

<https://www.malaymail.com/news/malaysia/2015/10/06/federal-court-rules-sedition-act-constitutional-ums-azmi-sharom-to-stand-tr/982345>

¹⁷ FMT Reporters. (2022, April 14). Fahmi Reza probed for sedition over satirical ape cartoon, say cops. *Free Malaysia Today*.

<https://www.freemalaysiatoday.com/category/nation/2022/04/14/fahmi-reza-probed-for-sedition-over-satirical-ape-cartoon-say-cops/>

¹⁸ Teoh, P. Y. (2022, July 17). Man who allegedly insulted Islam arrested by police. *New Straits Times*.

<https://www.nst.com.my/news/crime-courts/2022/07/814085/man-who-allegedly-insulted-islam-arrested-police>

¹⁹ SoyaCincau. (2021, March 9). Fahmi Reza investigated for alleged defamation against Ministry of Health. *SoyaCincau*.

<https://soyacincau.com/2021/03/09/fahmi-reza-investigated-for-alleged-defamation-against-ministry-of-health/>

²⁰ Palansamy, Y. (2022, May 21). Cops say probe opened after Kit Siang’s tweet on Sri Lankans burning homes of their PM, Cabinet. *Malay Mail*.

<https://www.malaymail.com/news/malaysia/2022/05/21/cops-say-probe-opened-after-kit-siangs-tweet-on-sri-lankans-burning-homes-of-their-pm-cabinet/7969>

Evidence Act 1950

(No updates)

The Evidence Act 1950 does not impose punishment on offenses carried out in the online space. Still, the amendment that came into force in 2012 with the introduction of Section 114A directly impacts online users. Under Section 114A, a person is deemed to be the publisher of online content if the person's identity is shown to possess control over the content, if the content originates from the network subscribed under the name of the person, or if the content originates from the computer in custody of the person. This presumption is problematic, as it could lead to a situation where a person could be found responsible for actions committed online by another using the person's computer or the person's network. For instance, the Federal Court in February 2021 found local online news portal Malaysiakini to be liable for contempt of court over a comment left by its reader in relation to the judiciary on its portal.²¹

Cybersecurity Bill

(New legislation)

Before 25 March 2024, Malaysia lacked a consolidated cyber security legislation. However, there were existing laws in the country addressing cyber security within different legislative acts, such as the Communication and Multimedia Act 1998, Penal Code, etc.²²

On 25 March 2024, the Cyber Security Bill was tabled at the Lower House of the Malaysian Parliament (Dewan Rakyat) and passed after its second reading on 27 March 2024. On 3 April 2024, the Upper House of Parliament (Dewan Negara) unanimously approved the Bill following its third reading. The Bill now awaits royal assent from the King Yang di-Pertuan Agong and subsequent publication in the Government Gazette to become law.²³

The Bill represents Malaysia's first overarching cyber security legislation. It aims to establish a regulatory framework to strengthen national cyber security through compliance with specific measures, standards, and processes in managing cyber security threats.²⁴ However, the Cyber Security Bill has elicited concerns in terms of international human rights

²¹ Abdul Rashid, H. R. (2021, February 21). Malaysiakini in contempt over readers' comments, rules Federal Court. *Malaysiakini*. <https://www.malaysiakini.com/news/563548>

²² Christopher & Lee Ong. (2024, March). *Upcoming Cyber Security Act: What you need to know*. Christopher & Lee Ong. https://www.christopherleeong.com/media/7832/2024_27_03-cybersecurity-bill.pdf

²³ ARTICLE 19. (2024, April 3). *Malaysia: Draft Cyber Security Bill 2024*. Article 19. <https://www.article19.org/wp-content/uploads/2024/04/2024.04.04-Malaysia-Cybercrime-Analysis-2024.pdf>

²⁴ TheStar. (2024, April 3). Dewan Negara passes Cyber Security Bill 2024. *TheStar*. <https://www.thestar.com.my/news/nation/2024/04/03/dewan-negara-passes-cyber-security-bill-2024>

and freedom of expression standards.²⁵ The Bill is problematic due to its broad definitions of key terms like “cyber security incident”, which could include activities such as whistleblowing and potentially disrupt journalistic work. Moreover, numerous definitions are “subject to change at will, or missing entirely”. Other criticisms of the Bill include the “lack of independence or external oversight of the National Cyber Security Committee” and the “significant police powers without independence review or oversight”.²⁶

Code of Ethics for Journalists

(Updated policy)

In February 2024, the Communications Ministry launched the revised Malaysian Code of Ethics for Journalists, which outlined “[eight fundamental ethics that underscore the responsibilities and standards expected of journalists](#)”. The code will be used as a reference point by the Information Department for the management of media passes for practitioners. According to the [IFJ \(International Federation of Journalists\)](#), media organizations, unions, and press freedom groups have raised concerns about the revised Code of Ethics, as it could be used to extend government control over the functioning of media and press freedom. In the same period, the ministry stated that the Media Council Bill would be tabled in Parliament, where the Media Council “[can decide on developing its code of ethics](#)”.

²⁵ ARTICLE 19. (2024, April 3). *Malaysia: Draft Cyber Security Bill 2024*. Article 19. <https://www.article19.org/wp-content/uploads/2024/04/2024.04.04-Malaysia-Cybercrime-Analysis-2024.pdf>

²⁶ ARTICLE 19. (2024, April 3). *Malaysia: Draft Cyber Security Bill 2024*. Article 19. <https://www.article19.org/wp-content/uploads/2024/04/2024.04.04-Malaysia-Cybercrime-Analysis-2024.pdf>

Reported Cases of Internet Censorship

The Malaysian Communication and Multimedia Commission (MCMC) acts as the regulatory body for Malaysia's communications and multimedia industry. The commission asserts that one of its primary responsibilities is to prevent the misuse of online platforms for committing offences under the law. Therefore, the MCMC takes action against misinformation and hate speech to safeguard the Malaysian population.²⁷

The MCMC does not publish a list of blocked sites; however, statements have been released occasionally to announce the number of blocked sites. Recently, it was revealed that 549 pornographic and 69 prostitution websites were blocked between January and June 2024.²⁸ Moreover, media articles have highlighted reported cases of internet censorship between July 2023 and June 2024, detailed below.

On 3 July 2023, multiple users could not access the independent news portal malaysia-today.net. Tests on OONI, a software measuring censorship globally, confirmed the blocking. Users of Maxis and Celcom (Malaysian ISPs), in particular, were unable to access the news portal.²⁹

On 24 July 2023, the blog of former parliament member Woo Choo Keong, weechookeong.com, was blocked in Malaysia without any explanation from the MCMC. Wee's lawyer argued that this action was a violation of his constitutional right to freedom of speech and expression and threatened legal action against the commission.³⁰ On 19 April 2024, High Court Judge Amarjeet Singh instructed the MCMC to disclose documents related to the blocking of Wee Choo Keong's blog.³¹

²⁷ Bernama. (2023, September 1). MCMC WILL UPHOLD INFORMATION INTEGRITY UNDER CMA 1998. *Ministry of Communications*.

<https://www.kkd.gov.my/en/public/news/24723-mcmc-will-uphold-information-integrity-under-cma-1998>

²⁸ Fam, C. (2024, June 24). MCMC Blocked 549 pornographic websites and 69 prostitution websites this year, says Deputy Comms Minister. *TheStar*.

<https://www.thestar.com.my/tech/tech-news/2024/06/24/mcmc-blocked-549-pornographic-websites-and-69-prostitution-websites-this-year-says-deputy-comms-minister>

²⁹ Webmaster, MT (2023, July 3). Another Prominent Website Blocked As Suspicion Swirls Over Govt Internet Censorship. *Malaysia Today*.

<https://www.malaysia-today.net/2023/07/03/another-prominent-website-blocked-as-suspicion-swirls-over-govt-internet-censorship/>

³⁰ Staff Writers (2023, July 24). Ex-MP gives ultimatum to MCMC: 'Unblock my blog or see you in court'. *Malaysia Now*.

<https://www.malaysianow.com/news/2023/07/27/ex-mp-gives-ultimatum-to-mcmc-unblock-my-blog-or-see-you-in-court>

³¹ Malaysia Today. (2024, April 19). MCMC Ordered By The High Court To Produce Police Instructions To Block Weechookeong.Com. *Malaysia Today*.

<https://www.malaysia-today.net/2024/04/19/mcmc-ordered-by-the-high-court-to-produce-police-instructions-to-block-weechookeong-com/>

On 7 August 2023, the Malaysian Communications and Multimedia Commission (MCMC) blocked access to the news portal UtusanTv.com. Users were redirected to a government notice indicating that the website was unavailable in Malaysia as it violated the national law.³²

On 15 August 2023, TV Pertiwi's official TikTok account was banned, allegedly due to its coverage of issues concerning the state elections³³. A few days later on 17 August 2023, the news portal's website tvpertiwi.com was inaccessible from certain ISPs supposedly mandated by the Malaysian Communications and Multimedia Commission (MCMC). On 18 August 2024, the MCMC said that "it took action on online portal TV Pertiwi to prevent any offenses related to misinformation".³⁴

On 30 April 2024, Sinar Project confirmed that several Malaysian ISPs were enforcing what seems to be a mandated blocking of the websites AsiaSentinel.com and grindr.com by the Malaysian Multimedia Communications and Multimedia Commission (MCMC). Following test measurement and data analysis, Sinar confirmed that AsiaSentinel.com has been blocked since 22 December 2023³⁵ and grindr.com since 16 April 2024.³⁶

This is not the first blocking of AsiaSentinel.com. The Malaysian government blocked this website in 2016, likely due to its critical articles on then Prime Minister Najib Razak and its publication of reports from Sarawak Report regarding 1MDB. The block was lifted in 2018 following the defeat of Najib's coalition in the general elections.

Grindr.com is the world's largest social networking app for gay, bi, trans, and queer people. In 2023, Grindr was blocked in 12 countries, making this website the second-most blocked messaging platform outside India after Facebook. The blocking of Grindr in Malaysia and in the other 12 countries is an indicator that governments are blocking websites to marginalize specific groups.³⁷

³² Malaysiakini. (2023, August 7). Govt blocks UtusanTv website. *Malaysiakini*.
<https://www.malaysiakini.com/news/674818>

³³ Mustakim, A. (2023, August 15). Now, TikTok account of TV Pertiwi blocked as well. *MalaysiaNow*.
<https://www.malaysianow.com/news/2023/08/15/how-tiktok-account-of-tv-pertiwi-blocked-as-well>

³⁴ Yeoh, A. (2023, August 18). MCMC: Action taken on TV Pertiwi for assessment of offense under CMA 1998. *TheStar*.
<https://www.thestar.com.my/tech/tech-news/2023/08/18/mcmc-action-taken-on-tv-pertiwi-for-assessment-of-offense-under-cma-1998>

³⁵ Sinar Project. (2024, April 30). *Internet Censorship Update: Blocking of AsiaSentinel.com website*. iMap.
<https://imap.sinarproject.org/news/internet-censorship-update-blocking-of-asiasentinel-com-website>

³⁶ Sinar Project. (2024, April 30). *Internet Censorship Update: Blocking of Grindr.com website*. iMap.
<https://imap.sinarproject.org/news/internet-censorship-update-blocking-of-grindr-com-website>

³⁷ AccesNow. (2024, May 15). *Internet Shutdowns in 2023*.
<https://www.accessnow.org/wp-content/uploads/2024/05/2023-KIO-Report.pdf>

Network Landscape and Internet Penetration

Male internet users decreased from 98.8% in 2022 to 98.2% in 2023, whereas female internet users increased from 95.9% in 2022 to 97.2% in 2023.³⁸

During the first quarter of 2024, the fixed broadband penetration rate was 46.9 per 100 premises, and the mobile broadband penetration rate was 132.1 per 100 inhabitants. Kelantan had the lowest fixed broadband penetration rate at 23.5%, followed by Sabah at 24.2% and Perlis at 25.7%, while Sabah had the lowest mobile broadband penetration rate at 96.9%, followed by Perlis at 103.8% and Kelantan at 112.5%.³⁹

During the first quarter of 2024, Malaysia had 32,885,100 4G mobile broadband subscriptions and 11,933,700 5G mobile broadband subscriptions. The number of 5G subscriptions rose by 44.2%, whereas 4G subscriptions decreased by 11% from Q4 2023 to Q1 2024. Sarawak, the largest state in Malaysia, had the lowest 4G mobile broadband coverage at 87.9%, followed by Sabah at 90.7% and Pahang at 94.4%. The highest 4G mobile broadband coverage areas were Kuala Lumpur, Putrajaya, and Perlis with a coverage of 100%, followed by Selangor and Pulau Pinang at 99.9% each.⁴⁰

With the exception of Telekom Malaysia, Internet and mobile service providers in Malaysia are privately owned. Telekom Malaysia's majority shareholder is Khazanah Nasional, the investment holding arm under the Malaysian government, which has 20% of the shares outstanding⁴¹. In addition, it is Malaysia's largest broadband provider, with a 69% market share of fixed-broadband subscriptions in 2023.⁴²

³⁸ Department of Statistics Malaysia. (2024, April 22). ICT Use and Access by Individuals and Household Survey Report 2023. https://storage.dosm.gov.my/icths/icths_2023.pdf

³⁹ Malaysian Communications and Multimedia Commission. (2024). Communications & Multimedia Facts & Figures 1Q 2024. https://www.mcmc.gov.my/skmmgovmy/media/General/Resources/C-M-1Q-2024_BI.pdf

⁴⁰ Malaysian Communications and Multimedia Commission. (2024). Communications & Multimedia Facts & Figures 1Q 2024. https://www.mcmc.gov.my/skmmgovmy/media/General/Resources/C-M-1Q-2024_BI.pdf

⁴¹ Simply Wall St (2024, June 18). Institutional investors control 43% of Telekom Malaysia Berhad (KLSE:TM) and were rewarded last week after stock increased 3.7%. *Simply Wall Street*. <https://simplywall.st/stocks/my/telecom/klse-tm/telekom-malaysia-berhad-shares/news/institutional-investors-control-43-of-telekom-malaysia-berhad>

⁴² FitchRatings. (2024, May 13). Fitch Affirms Telekom Malaysia at "BBB+"; Outlook Stable. *FitchRatings*. <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-telekom-malaysia-at-bbb-outlook-stable-13-05-2024#:~:text=TM%20is%20Malaysia's%20largest%20fixed,owned%20by%20the%20Malaysian%20government.>

Some of the leading internet and mobile service providers are as follows:

Mobile Operators/ISPs	Fixed Internet	Mobile Internet
CelcomDigi	x	x
Maxis Communications	x	x
redONE		x
Telekom Malaysia	x	x
Time dotCom	x	
Tune Talk		x
U Mobile	x	x
Yes	x	x
Yodo		x

Table 2: Summary of the main telecommunications operators in Malaysia

Following the successful merger of Celcom and Digi in December 2022, they are now the most prominent mobile broadband provider and largest local-listed tech company in Malaysia.⁴³ While they are now merged in terms of [corporate branding](#), network integration is marked at [44% complete as of May 2024](#). In terms of internet censorship, [OONI data](#) showed that there are still some inconsistencies recorded for the same blocked website. For example, Digi (AS4818) showed blocking of [MalaysiaNow.com](#) on most of the measurements, but Celcom (AS10030) did not record any blocking at all throughout the same period.

⁴³ Soya Cincau. (2022, November 30). Celcom-Digi merger is now complete, forming the largest tech company on Bursa Malaysia. <https://www.mcmc.gov.my/ms/media/press-clippings/celcom-digi-merger-is-now-complete-forming-the-lar>

Findings on Internet Censorship in Malaysia

All of the findings are based on data collected through OONI from 1 July 2023 to 30 June 2024.

Blocking of Websites

Throughout the one-year period, 6.8 measurements from 2,384 websites were tested. As of 30 June 2024, the test list contained 1,666 websites in the Global Test List and 509 websites in the Malaysia Test List.

These measurements were analysed using the heuristics as in Annex IV, and it was found that there were 141 confirmed blocked websites. The complete list of these confirmed blocked websites is included in Annex I. Note that the decrease from the 530 confirmed blockings in the 2022 report does not mean that there was decreased censorship as the unit of measurement is different. We tested against the [list of scam websites published by the Securities Commission Malaysia](#) during the previous coverage period, hence the higher number of confirmed websites then.

The table below summarises the results of the testing:

	Jul-Sep 2023	Oct-Dec 2023	Jan-Mar 2024	Apr-Jun 2024	Total
Measured	2,111,858	1,588,777	1,407,572	1,666,617	6,774,824
Blocked	69,002	35,047	32,510	36,281	172,840
Block rate	3.27%	2.21%	2.31%	2.18%	2.55%
Domain	2,132	2,129	2,151	2,240	2,384
ASNs	21	20	21	20	33

Table 3: Summary of OONI web connectivity measurements for Malaysia from 1 July 2023 to 30 June 2024.

The top three categories of websites with the highest percentage of blocked measurements are pornography, gambling, and terrorism and militant websites. DNS tampering is the main method used for censorship in blocking websites.

Category	Category description	OONI probe measurements	Number of blocked measurements	Percentage of blocked measurements
ALDR	Alcohol and Drugs	38		0.00%
ANON	Anonymization and Circumvention Tools	122	1	0.82%
COMM	E-commerce	41	7	17.07%
COMT	Communication Tools	136		0.00%
CTRL	Control Content	23		0.00%
CULTR	Culture	102	5	4.90%
DATE	Online Dating	25	5	20.00%
ECON	Economics	43	2	4.65%
ENV	Environment	56		0.00%
FILE	File-sharing	77	14	18.18%
GAME	Gaming	36		0.00%
GMB	Gambling	41	22	53.66%
GOVT	Government	44		0.00%
GRP	Social Networking	88	2	2.27%
HACK	Hacking Tools	48	1	2.08%
HATE	Hate Speech	7	1	14.29%
HOST	Hosting and Blogging Platforms	144	3	2.08%
HUMR	Human Rights Issues	213	1	0.47%
IGO	Intergovernmental Organization	15		0.00%
LGBT	LGBT	92	8	8.70%
MILX	Terrorism and Militants	4	1	25.00%
MISC	Miscellaneous content	8		0.00%

Category	Category description	OONI probe measurements	Number of blocked measurements	Percentage of blocked measurements
MMED	Media sharing	55	4	7.27%
NEWS	News Media	209	16	7.66%
POLR	Political Criticism	122	16	13.11%
PORN	Pornography	33	25	75.76%
PROV	Provocative Attire	17		0.00%
PUBH	Public Health	60		0.00%
REL	Religion	121	5	4.13%
SRCH	Search Engines	45	2	4.44%
XED	Sex Education	51		0.00%

Table 4: Summary of OONI web connectivity measurements for Malaysia from 1 July 2022 to 30 June 2023 by category

Note: Blocked and likely blocked measurements include Confirmed Blocked, Anomaly, and Failures on OONI measurements.

In August 2024, MCMC [reported that it had blocked more than 10,000 websites](#) since 2022, where 95.7 percent of them comprised of the following categories: online gambling (4,484 sites), pornography (3,271 sites), copyright infringement (1,654 sites), scams or illegal investments (316 sites), and prostitution (249 sites). The remaining 4.3 percent, or 449 websites, fell into categories not included in the same report.

Method of Blocking

Malaysia has only one known block page, i.e. [MCMC's IP address 175.139.142.25](#), where all confirmed ISPs redirect blockings to this address through DNS tampering.

Political Criticism Websites

A total of 15 domains were confirmed blocked from access in Malaysia.

No.	Website	Description
Blocked since before the period of reference:		
1.	khilafah.net	Websites promoting a Khilafah state and Islamic affairs around the world.
2.	khilafah.com	
3.	www.financetwitter.com	A blog featuring economy and financial-related news, including their political impact on the market.
4.	www.hizb-ut-tahrir.org	An Islamic blog promoting a Khilafah state with contents on political analysis with publications from Islamic perspectives.
5.	www.bersih.org	The official website of the Coalition for Clean and Fair Elections formed by members of civil society organisations and political parties in campaigning for clean and fair elections.
6.	monyetistana.com	An NFT Fundraising Campaign website featuring a cartoon monkey mimicking royalty.
7.	steadyaku47.com	A blog with articles commenting on current affairs in Malaysia.
8.	www.jihadwatch.org	A blog taking a far-right approach seeking to counter the jihad movement, run by Robert Spencer.
Newly found blocked during period of reference:		
9.	www.murrayhunter.substack.com	Political commentary sites run by Murray Hunter. After the blocking of the original website domain, the website owner created a mirror link which also got blocked.
10.	murrayhunter.substack.com	
11.	gschqckhtpkidzxz.global.ssl.fastly.net	

12.	mypt3.com	A web portal that contains various articles such as guides for civil servants, application guides for government aid, education, and travel.
13.	weechookeong.com	A political commentary site run by a former MP, Wee Choo Keong.
14.	www.weechookeong.com	
15.	www.thethirdforce.net	A political commentary site run by Raggie Jessy, a “scientist-cum-political activist and analyst”.

Table 5: Domains of political criticism websites found to be blocked in Malaysia.

News Media Websites

A total of 15 websites were confirmed blocked from access in Malaysia. In September 2023, MCMC claimed that it blocked critical news websites [“to ensure responsible reporting of news”](#).

No.	Input	Description
Blocked since before the period of reference:		
1.	malaysianow.com	A local news site launched in September 2020, headed by CEO Abdar Rahman Koya.
2.	www.malaysianow.com	
3.	www.malaysia-chronicle.com	A website with news and commentary on local political issues.
Newly found blocked during period of reference:		
4.	asiasentinel.com	An independent news website about Asia’s politics, economics, culture, and others.
5.	www.asiasentinel.com	
6.	guangming.com.my	The third largest circulation Chinese-language newspaper published in Malaysia; a sister company of Sin Chew Daily .
7.	malaysia-today.net	A political news and commentary site run by Raja Petra, commonly known as RPK.

8.	samudera.my	An online news portal written in Malay language.
9.	www.samudera.my	
10.	thecorporate-secrets.com	A news portal on political and corporate-related controversies.
11.	www.thecorporate-secrets.com	
12.	www.thecorporatesecrets.com	
13.	tvpertivi.com.my	An independent online news portal in Malay language. It is owned by a company related to ISMA, a conservative Islamic NGO in Malaysia.
14.	www.tvpertivi.com.my	
15.	utusan.com	An independent news portal based in Malay language. It was formed by a group of former journalists from Utusan Malaysia when the company shut down in 2019.

Table 6: Domains of news media websites found to be blocked in Malaysia.

LGBT+ Websites

A total of eight LGBT+ websites were found to be confirmed blocked from access in Malaysia.

No.	Input	Description
Blocked since before period of reference:		
1.	www.gay.com	Since 2017, it redirects to https://lalgbtcenter.org/ , the official website of Los Angeles LGBT Center.
2.	www.utopia-asia.com	An Asian gay and lesbian resources and information site.
3.	www.utopia-asia.com	
4.	ilga.org	The official website of the International Lesbian, Gay, Bisexual, Trans, and Intersex Association campaigning for lesbian, gay, bisexual, trans, and intersex human rights.

5.	www.gaystarnews.com	A site on gay current affairs, entertainment, business, and news.
6.	www.planetromeo.com	A dating site for gay, bi, and trans persons.
Newly found blocked during period of reference:		
7.	www.grindr.com	The website of the dating app Grindr that serves the LGBTQ community.
8.	cdns.grindr.com	One of the Grindr app endpoints required for the functionality of the app.

Table 7: Domains of LGBT+ websites found to be blocked in Malaysia.

Findings on Takedown Requests

During the second half of 2023, [TikTok recorded 1,862 content takedowns or 447.6% increase in takedown requests from the government](#). Additionally, [Meta restricted access to over 4,700 items](#) as reported by the Malaysian Communications and Multimedia Commission (MCMC). These include content related to illegal gambling in violation of the Common Gaming Houses Act and Betting Act, scams, regulated goods, religion-based hate speech in violation of Penal Code Section 298A, government criticisms, and racially or religiously divisive content and bullying content in violation of CMA Sections 233(1)(a) and 211. Additionally, they restricted access to over 470 items reported by government agencies, such as the Malaysian Ministry of Health and Commercial Crime Investigation Department, for alleged violation of local laws pertaining to regulated goods, fraud, and scams.

Acknowledgement of Limitations

- **Period of study**

To examine the most recent censorship trends and events, we limited the findings of this study to OONI network measurements collected from 1 July 2023 to 30 June 2024.

- **Vantage points**

Although OONI network measurements were collected from 33 vantage points in Malaysia, the [OOONI Probe](#) tests were not run consistently on each network, nor on all networks in the country.

- **Use of domain as a unit of measurement of websites**

In general, “URL” (or in OONI’s terms – input) and “domain” are interchangeable terms used to refer to a website. In the OONI test list, the full URLs are input in the probe to be tested for censorship, similar to a URL starting with “https” or “http” in a browser. The URLs are measured for censorship by [OOONI Probe](#) with the [Web Connectivity experiment](#), which is designed to measure whether access to tested URLs is interfered with through DNS tampering, TCP/IP blocking, an HTTP transparent proxy, or through TLS interference. However, when analyzing results on OONI, the reader should be aware that there are differences in the numbers concerning the specific input or domain, as a different volume of measurements may have been collected for a URL (e.g. <https://www.hrw.org/asia/cambodia>) in comparison to a domain (e.g. www.hrw.org).

In the 2023 [report](#), we based our analysis primarily on URLs because they were thought to provide more context on the reason why the web page was blocked and

could be categorized more similarly to the [Citizen Lab test lists](#), which are URL format. However, in this 2024 report, we based our analysis on domains, so readers will need to be cautious about making year-to-year comparisons.

- **Confirmed blockings vs. Likely blockings or Inaccessible**

The confirmed blocked websites are based on the data where the testing result shows a trace to a government or ISP block page. This typically means a block page is served when the user tries to access the website on a particular network or that DNS resolution returns an IP address associated with censorship. These cases are automatically annotated as “confirmed blocked” based on [fingerprints](#) added to OONI’s database. When a website is found to be confirmed blocked, it may be blocked only on specific networks and remain accessible on the rest. Confirmed blockings may also be specific based on the URL; for example, <https://abc.com/> may be censored but not <https://www.abc.com/>.

In this 2024 report, confirmed blockings and likely blockings were consolidated based on the country. See the section on [verifying OONI measurements](#).

- **Test lists**

The websites tested for censorship on OONI are either from the [Citizen Lab test lists](#) or additional websites tested by [OONI Probe](#) users. While the websites in the test lists are categorized based on specific [standardized categories](#), the percentage of blocked or likely blocked cases may not necessarily reflect the entire state of internet censorship in the country, as only sampled websites are included in the testing.

- **Differences in numbers with OONI data**

The findings in this report were obtained after further processing the data from OONI. This involved obtaining more confirmed blockings and eliminating false positives through additional heuristics and manual verification by iMAP researchers based on country or local context. While these heuristics will eventually be added to OONI’s fingerprints, OONI will only process them for future testing.

Additionally, iMAP researchers have categorized blocked websites that were not part of the Citizen Lab test lists but were tested on OONI via custom test lists. Hence, the figures in this report may differ from the results on [OONI Explorer](#).

- **Testing of instant messaging apps and circumvention tools**

The instant messaging apps and circumvention tools are limited to those [tested on OONI](#). Therefore, the results may not reflect the state of censorship of apps more commonly used in individual countries.

Conclusion

During the present coverage period of June 2022 to July 2023, pornography and gambling sites continued to be the most blocked websites, similar to our findings in previous editions of the report. In the same period, more websites on political criticism and critical news websites were blocked, such as Utusan TV, Malaysia Now, and Guang Ming Daily, although only for two days. LGBTQ-related websites continued to be blocked, such as the website of the dating app Grindr. With the exception of cases where the website owner had directly sought the attention of MCMC such as Utusan TV, there were no official reasons provided for blocking these websites. Additionally, there was never any notice of the blocking to the website owners or to the public prior to the takedown.

The merger of Digi Telecommunications and Celcom Axiata, forming the largest telco in Malaysia, seems to have been completed in terms of corporate branding and retail branches. However, network integration is still ongoing. Accordingly, there were variations in censorship imposed by Digi and Celcom, suggesting that different personnels were in control of implementation of the blockings upon order by MCMC.

The method of blocking detected in Malaysia remained the same as last year-through DNS blocking, where the websites blocked in all ISPs were redirected to [MCMC's IP address 175.139.142.25](#). In August 2024, shortly after the coverage period, it was reported that the government had attempted to increase the stringency of censorship by redirecting public DNS such as Google and Cloudflare to the ISP's DNS. The policy was soon reversed after a public uproar.

Contribute to the Study

If you would like to contribute to the OONI measurements, there are several ways to get involved:

- Perform testing on [various platforms](#), both on Mobile (iOS and Android) and Desktop, including on the CLI on Linux platforms. The domains you test can be either randomly selected from the [Citizenlab Test Lists](#) or custom test lists specific to your needs.
- Contribute to the test lists on GitHub or on [OONI](#).
- Translate the OONI Probe to your local language [here](#).
- Participate in community discussions on the [OONI Slack channel](#) or our Volunteers Telegram Channel.

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Additionally, we would like to extend our gratitude to local partners, activists, academicians, researchers, and anonymous users in Malaysia for their assistance in running the OONI Probe.

Annex I: List of Confirmed Blockings

There were 158 confirmed blockings based on OONI data. Note that while this was a decrease from the 530 confirmed blockings in the 2022 report, this does not mean that there was decreased censorship as the unit of measure was different. Additionally, during the previous period of coverage, we had conducted testing against the [list of scam websites published by the Securities Commission Malaysia](#).

Blocked Websites	Categories	ASN	Details
1337x.st	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
1337x.to	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
32red.com	Gambling	AS9534, AS38466, AS4818, AS45960, AS4788, AS38322, AS9930	Link
admiralmarkets.com	Economics	AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
adultfriendfinder.com	Online Dating	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
asianleak.com	Pornography	AS4818, AS10030, AS4788	Link
asiasentinel.com	News Media		Link
beeg.com	Pornography	AS9534, AS4818, AS45960, AS4788, AS38322, AS9930	Link
bersih.org	Human Rights Issues	AS45960, AS38466, AS9930	Link
blued.com	Online Dating		Link
breached.co	Search Engines	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
breached.vc	Hacking Tools	AS9534, AS38466, AS4818, AS10030,	Link

Blocked Websites	Categories	ASN	Details
		AS45960, AS4788, AS38322, AS9930	
caghi.com	Search Engines	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
cdns.grindr.com	LGBT		Link
club99.com.my	Gambling		Link
doh.centraleu.pi-dns.com	Hosting and Blogging Platforms		Link
edisiasatmy.blogspot.com	Political Criticism	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
eztv.ag	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
eztv.re	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
getlantern.org	Anonymization and Circumvention Tools	AS10030	Link
godhatesfags.com	Hate Speech	AS9534	Link
grindr.com	Online Dating		Link
gschqckhtpkidzxx.global.ssl.fastly.net	Political Criticism	AS9534, AS4818, AS10030, AS4788, AS38322, AS9930	Link
guangming.com.my	News Media	AS4788, AS9930	Link
hotgaylist.com	Pornography	AS38322, AS4788, AS9534	Link
hqporner.com	Pornography	AS4818	Link
huobi.com	E-commerce	AS4818, AS10030	Link
hustler.com	Pornography		Link
ilga.org	LGBT	AS9534	Link
im0-tub-com.yandex.net	Search Engines		Link
islamsyiah.wordpress.com	Religion	AS9534, AS38466, AS45960, AS10030, AS4788, AS38322, AS9930	Link
ismaweb.net	Religion	AS4818, AS4788, AS45960	Link

Blocked Websites	Categories	ASN	Details
kat.am	File-sharing	AS9534, AS10030, AS4788, AS38322, AS9930	Link
katcr.to	File-sharing	AS9534, AS38466, AS10030, AS4788, AS38322	Link
khilafah.net	Political Criticism	AS38322, AS4788, AS9534	Link
kickasstorrents.to	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
lucahmelayu.club	Pornography	AS4818, AS10030, AS45960, AS4788, AS38322	Link
malaypornhub.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
malaysia-today.net	News Media	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
malaysianow.com	News Media	AS4818	Link
maxcdn.bootstrapcdn.com	Hosting and Blogging Platforms	AS10030	Link
monyetistana.com	Political Criticism	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322	Link
mufti.perlis.gov.my	Religion		Link
murrayhunter.substack.com	Political Criticism	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
mypt3.com	Political Criticism	AS9534, AS10030, AS4788, AS38322, AS9930	Link
onlyfans.com	Pornography	AS9534, AS10030, AS4788, AS38322, AS9930	Link
polyfill.io	Hosting and Blogging Platforms	AS10030	Link

Blocked Websites	Categories	ASN	Details
pornhub.com	Pornography	AS9534, AS38466, AS4818, AS10030, AS4788, AS38322, AS9930	Link
pub.webull.com	E-commerce		Link
rargb.to	File-sharing	AS9534, AS38466, AS10030, AS4788, AS38322	Link
rule34.xxx	Pornography		Link
saidila.com	Culture	AS38466, AS4818, AS10030, AS4788, AS38322	Link
samudera.my	News Media	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
sp.webull.com	E-commerce		Link
steadyaku-steadyaku-husseinhamid.blogspot.my	Political Criticism	AS9930	Link
steadyaku47.com	Political Criticism	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
subscene.com	Culture	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
sucreebook.com	Online Dating	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
sugarbook.com	Online Dating	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
thecorporate-secrets.com	News Media	AS4818	Link
thecorporatesecrets.com	Political Criticism	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS9930	Link
thepiratebay.org	File-sharing	AS9534, AS38466, AS4818, AS10030,	Link

Blocked Websites	Categories	ASN	Details
		AS45960, AS4788, AS38322, AS9930	
thepiratebay.se	File-sharing	AS9930	Link
tinyzonetv.se	Media sharing	AS4818	Link
tinyzonetv.to	Media sharing	AS4818	Link
transsexual.org	LGBT	AS10030	Link
turbobit.net	Hosting and Blogging Platforms	AS4818, AS9534, AS9930	Link
tvpertiwi.com.my	News Media	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
utusanTV.com	News Media		Link
utusanTV.com	News Media	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
weechookeong.com	Political Criticism	AS9534, AS38466, AS45960, AS4788, AS38322	Link
www.4chan.org	Social Networking	AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
www.888casino.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.89.com	Economics	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.aladdin99.com	Gambling		Link
www.alpari.org	Economics	AS4818, AS4788, AS9534, AS38322	Link
www.angelfire.com	Terrorism and Militants	AS9534	Link
www.answering-islam.org	Religion	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
www.asiasentinel.com	News Media	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link

Blocked Websites	Categories	ASN	Details
www.bersih.org	Political Criticism	AS45960, AS38466, AS9930, AS132688	Link
www.betasia.com	Gambling	AS4818	Link
www.betfair.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.binance.com	E-commerce	AS4818, AS4788, AS9534, AS38322	Link
www.blued.com	Social Networking		Link
www.bravoporn.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.bravotube.net	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.casino.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.casinotropez.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS9930	Link
www.club99.com	Gambling		Link
www.club99.com.my	Gambling		Link
www.club99aladdin.com	Gambling		Link
www.club99web.co	Gambling		Link
www.clubs99.co	Gambling		Link
www.dandanzan.com	Media sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
www.eclbet.com	Gambling	AS9930	Link
www.eurogrand.com	Gambling		Link
www.europacasino.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS9930	Link
www.fanfiction.net	Culture	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link

Blocked Websites	Categories	ASN	Details
www.financetwitter.com	Political Criticism	AS9930	Link
www.gambling.com	Gambling	AS4818, AS4788, AS9534, AS38322	Link
www.gay.com	LGBT	AS9534	Link
www.gaystarnews.com	LGBT	AS9534, AS55720, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.getrevue.co	Hosting and Blogging Platforms		Link
www.goldenrivieracasin.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS9930	Link
www.gotgayporn.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.grindr.com	LGBT		Link
www.hizb-ut-tahrir.org	Political Criticism	AS9534, AS38466, AS55720, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.huobi.com	E-commerce	AS4818, AS10030	Link
www.hustler.com		AS9534, AS45960, AS10030, AS4788, AS38322, AS9930	Link
www.islameyat.com	Religion		Link
www.itsyoursexlife.com	Sex Education		Link
www.iyf.tv	Media sharing	AS9930	Link
www.jihadwatch.org	Political Criticism	AS9534	Link
www.jsf.mil	Government		Link
www.khilafah.com	Political Criticism	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322	Link
www.kucoin.com	E-commerce	AS4818, AS4788, AS9534, AS38322	Link
www.limetorrents.lol	File-sharing	AS9534, AS38466, AS4818, AS10030, AS4788, AS38322, AS9930	Link

Blocked Websites	Categories	ASN	Details
www.literotica.com	Culture	AS38322, AS4788, AS9534	Link
www.lushstories.com	Culture	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.malayporn.space	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.malaysia-chronicle.com	News Media	AS9534, AS4818, AS10030, AS4788, AS38322	Link
www.malaysia-today.net	Political Criticism	AS9534, AS4818, AS10030, AS4788, AS38322	Link
www.malaysianow.com	News Media	AS4818, AS10030	Link
www.murrayhunter.substack.com	Political Criticism	AS4818, AS10030, AS4788, AS9534	Link
www.myclub99.com	Gambling		Link
www.mywebcalls.com	Communication Tools		Link
www.oic-oci.org	Religion		Link
www.onlinegambling.com	Gambling	AS4818, AS4788, AS9534, AS38322	Link
www.patheos.com	Religion	AS9534, AS38466, AS4818, AS10030, AS45960	Link
www.planetromeo.com	LGBT	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.playboy.com	Pornography	AS9534	Link
www.pof.com	Online Dating		Link
www.pokerstars.com	Gambling	AS4818, AS4788, AS9534, AS38322	Link
www.pornhub.com	Pornography	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link

Blocked Websites	Categories	ASN	Details
www.porntrex.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.rarbg.to	File-sharing	AS4818, AS4788, AS9534, AS38322	Link
www.rule34video.com	Pornography	AS9534	Link
www.samudera.my	News Media	AS9534, AS4818, AS10030, AS4788, AS38322	Link
www.sex.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.spinpalace.com	Gambling	AS9534, AS4818, AS10030, AS45960, AS4788, AS9930	Link
www.surewin365.net	Gambling	AS4818, AS4788, AS9534, AS38322	Link
www.thecorporate-secrets.com	News Media	AS4818	Link
www.thecorporatesecrets.com	News Media	AS4818, AS10030, AS4788, AS9534	Link
www.thereligionofpeace.com	Religion	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.thethirdforce.net	Political Criticism	AS4788	Link
www.tvpertiwi.com.my	News Media	AS4818, AS10030, AS4788	Link
www.utamarket.com	Economics	AS9930	Link
www.utopia-asia.com	LGBT	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.weechookeong.com	Political Criticism	AS4788, AS9534	Link
www.wetplace.com	Pornography	AS45960, AS9534, AS38466, AS9930	Link
www.xnxx.com	Pornography	AS4788	Link
www.xvideos.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
www.youporn.com	Pornography	AS45960, AS9534, AS9930	Link

Blocked Websites	Categories	ASN	Details
x1337x.eu	File-sharing	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
xhamster.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
xm.com	E-commerce		Link
xmalay.com	Pornography	AS9534, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link
yts.mx	File-sharing	AS9534, AS38466, AS4818, AS10030, AS45960, AS4788, AS38322, AS9930	Link

Annex II: List of ISPs

ASN	Internet Service Provider	Measurement Count
AS9930	TIME DOTCOM BERHAD	2,767,142
AS4788	TM Net, Internet Service Provider	2,448,584
AS9534	Maxis Communications Bhd	1,012,560
AS10030	Celcom Internet Service Provider	171,383
AS4818	DiGi Telecommunications Sdn. Bhd.	152,860
AS45410	ALLO TECHNOLOGY SDN. BHD.	34,372
AS45960	YTL COMMUNICATIONS SDN BHD	32,258
AS38322	Packet One Networks Sdn Bhd, Internet Services Provider	31,279
AS38466	U Mobile Sdn Bhd	26,166
AS24090	Universiti Sains Malaysia	24,859
AS55720	THEGIGABIT.com - Dedicated Server & Server Co-Location	22,239
AS132688	University of Malaya	18,293
AS23678	MyKRIS Asia Sdn Bhd	12,135
AS21859	Zenlayer Inc	6,225
AS206804	ESTNOC-GLOBAL	5,051
AS55482	Sunway Digital Wave Sdn Bhd	4,609
AS9009	M247 Europe SRL	1,650
AS133014	Universiti Teknologi Malaysia	916
AS135300	Myanmar Broadband Telecom Co., Ltd	577
AS207907	NSQ Venture (M) SDN BHD	458
AS133421	INNET SOLUTIONS SDN BHD	230
AS137510	JENEXUS HOLDING SDN BHD	217
AS56140	Nocser Technology	200
AS45839	PIRADIUS NET	116
AS135277	Freshtel Group SDN BHD	116
AS132890	IP Core Sdn Bhd	111
AS24020	University ITM, Shah Alam, Selangor Malaysia	101
AS46015	Exa Bytes Network Sdn.Bhd.	38

ASN	Internet Service Provider	Measurement Count
AS135496	UNIVERSITI KEBANGSAAN MALAYSIA	32
AS132372	GB Network Solutions Sdn. Bhd.	20
AS209854	Cyberzone S.A.	17
AS36351	SoftLayer Technologies Inc.	7
AS132901	Global Forway Sdn Bhd	3

Annex III: Glossary

DNS	<p>DNS, which stands for Domain Name System, maps domain names to IP addresses.</p> <p>A domain is a name that is commonly attributed to websites (when they're created), so that they can be more easily accessed and remembered. For example, twitter.com is the domain of the Twitter website.</p> <p>However, computers can't connect to internet services through domain names, but based on IP addresses: the digital address of each service on the internet. Similarly, in the physical world, you would need the address of a house (rather than the name of the house itself) in order to visit it.</p> <p>The Domain Name System (DNS) is what is responsible for transforming a human-readable domain name (such as ooni.org) into its numerical IP address counterpart (in this case:104.198.14.52), thus allowing your computer to access the intended website.</p>
HTTP	<p>The Hypertext Transfer Protocol (HTTP) is the underlying protocol used by the World Wide Web to transfer or exchange data across the internet.</p> <p>The HTTP protocol allows communication between a client and a server. It does so by handling a client's request to connect to a server, and the server's response to the client's request.</p> <p>All websites include an HTTP (or HTTPS) prefix (such as http://example.com/) so that your computer (the client) can request and receive the content of a website (hosted on a server).</p> <p>The transmission of data over the HTTP protocol is unencrypted.</p>
Heuristics	<p>Heuristics obtain further confirmed blockings other than that which are detected based on OONI blocking fingerprints. More detailed explanation can be found here.</p>
ISP	<p>An Internet Service Provider (ISP) is an organization that provides services for accessing and using the internet.</p> <p>ISPs can be state-owned, commercial, community-owned, non-profit, or otherwise privately owned. Vodafone, AT&T, Airtel, and MTN are examples of ISPs.</p>
Middle boxes	<p>A middlebox is a computer networking device that transforms, inspects, filters, or otherwise manipulates traffic for purposes other than packet forwarding.</p> <p>Many Internet Service Providers (ISPs) around the world use middleboxes to improve network performance, provide users with faster access to websites, and for a number of other networking purposes.</p>

	<p>Sometimes, middleboxes are also used to implement internet censorship and/or surveillance.</p> <p>The OONI Probe app includes two tests designed to measure networks with the aim of identifying the presence of middleboxes.</p>
TCP	<p>The Transmission Control Protocol (TCP) is one of the main protocols on the internet.</p> <p>To connect to a website, your computer needs to establish a TCP connection to the address of that website.</p> <p>TCP works on top of the Internet Protocol (IP), which defines how to address computers on the internet.</p> <p>When speaking to a machine over the TCP protocol you use an IP and port pair, which looks something like this: 10.20.11:8080.</p> <p>The main difference between TCP and (another very popular protocol called) UDP is that TCP has the notion of a “connection”, making it a “reliable” transport protocol.</p>
TLS	<p>Transport Layer Security (TLS) - also referred to as “SSL” - is a cryptographic protocol that allows you to maintain a secure, encrypted connection between your computer and an internet service.</p> <p>When you connect to a website through TLS, the address of the website will begin with HTTPS (such as https://www.facebook.com/), instead of HTTP.</p>

A comprehensive glossary related to OONI can be accessed here:
<https://ooni.org/support/glossary/>.

Annex IV: Methodology

Data

Data computed based on the heuristics for this report can be downloaded here: <https://github.com/Sinar/imap-data> whereas aggregated data can be downloaded from [OONI Explorer](#).

Coverage

The iMAP State of Internet Censorship Country Report covers the findings of network measurement collected through Open Observatory of Network Interference (OONI) [OONI Probe App](#) that measures the blocking of websites, instant messaging apps, circumvention tools and network tampering. The findings highlight the websites, instant messaging apps and circumvention tools confirmed to be blocked, the ASNs with censorship detected and method of network interference applied. The report also provides background context on the network landscape combined with the latest legal, social and political issues and events which might have an effect on the implementation of internet censorship in the country.

In terms of timeline, this second iMAP report covers measurements obtained in the one-year period from 1 July 2022 to 30 June 2023. The countries covered in this round are Cambodia, Hong Kong (China), Indonesia, Malaysia, Myanmar, Philippines, Thailand, India, Vietnam and Timor-Leste.

How are the network measurements gathered?

Network measurements are gathered through the use of [OONI Probe app](#), a free software tool developed by [Open Observatory of Network Interference \(OONI\)](#). To learn more about how the OONI Probe test works, please visit <https://ooni.org/nettest/>.

iMAP Country Researchers and anonymous volunteers run OONI Probe app to examine the accessibility of websites included in the [Citizen Lab test lists](#). iMAP Country Researchers actively review the country-specific test lists to ensure up-to-date websites are included and context-relevant websites are properly categorised, in consultation with local communities and digital rights network partners. We adopt the [approach taken by Netalitica](#) in reviewing country-specific test lists.

It is important to note that the findings are only applicable to the websites that were examined and do not fully reflect all instances of censorship that might have occurred during the testing period.

How are the network measurements analysed?

OONI processes the following types of data through its [data pipeline](#):

Country code

OONI by default collects the code which corresponds to the country from which the user is running OONI Probe tests from, by automatically searching for it based on the user's IP address through their [ASN database](#) the [MaxMind GeoIP database](#).

Autonomous System Number (ASN)

OONI by default collects the Autonomous System Number (ASN) of the network used to run OONI Probe app, thereby revealing the network provider of a user.

Date and time of measurements

OONI by default collects the time and date of when tests were run to evaluate when network interferences occur and to allow comparison across time. UTC is used as the standard time zone in the time and date information. In addition, the charts generated on OONI MAT will exclude measurements on the last day by default.

Categories

The 32 website categories are based on the Citizenlab test lists: <https://github.com/citizenlab/test-lists>. As not all websites tested on OONI are on these test lists, these websites would have unclassified categories.

No.	Category Description	Code	Description
1	Alcohol & Drugs	ALDR	Sites devoted to the use, paraphernalia, and sale of drugs and alcohol irrespective of the local legality.
2	Religion	REL	Sites devoted to discussion of religious issues, both supportive and critical, as well as discussion of minority religious groups.
3	Pornography	PORN	Hard-core and soft-core pornography.

No.	Category Description	Code	Description
4	Provocative Attire	PROV	Websites which show provocative attire and portray women in a sexual manner, wearing minimal clothing.
5	Political Criticism	POLR	Content that offers critical political viewpoints. Includes critical authors and bloggers, as well as oppositional political organizations. Includes pro-democracy content, anti-corruption content as well as content calling for changes in leadership, governance issues, legal reform. Etc.
6	Human Rights Issues	HUMR	Sites dedicated to discussing human rights issues in various forms. Includes women's rights and rights of minority ethnic groups.
7	Environment	ENV	Pollution, international environmental treaties, deforestation, environmental justice, disasters, etc.
8	Terrorism and Militants	MILX	Sites promoting terrorism, violent militant or separatist movements.
9	Hate Speech	HATE	Content that disparages particular groups or persons based on race, sex, sexuality or other characteristics
10	News Media	NEWS	This category includes major news outlets (BBC, CNN, etc.) as well as regional news outlets and independent media.
11	Sex Education	XED	Includes contraception, abstinence, STDs, healthy sexuality, teen pregnancy, rape prevention, abortion, sexual rights, and sexual health services.
12	Public Health	PUBH	HIV, SARS, bird flu, centers for disease control, World Health Organization, etc
13	Gambling	GMB	Online gambling sites. Includes casino games, sports betting, etc.
14	Anonymization and circumvention tools	ANON	Sites that provide tools used for anonymization, circumvention, proxy-services and encryption.
15	Online Dating	DATE	Online dating services which can be used to meet people, post profiles, chat, etc
16	Social Networking	GRP	Social networking tools and platforms.

No.	Category Description	Code	Description
17	LGBT	LGBT	A range of gay-lesbian-bisexual-transgender queer issues. (Excluding pornography)
18	File-sharing	FILE	Sites and tools used to share files, including cloud-based file storage, torrents and P2P file-sharing tools.
19	Hacking Tools	HACK	Sites dedicated to computer security, including news and tools. Includes malicious and non-malicious content.
20	Communication Tools	COMT	Sites and tools for individual and group communications. Includes webmail, VoIP, instant messaging, chat and mobile messaging applications.
21	Media sharing	MMED	Video, audio or photo sharing platforms.
22	Hosting and Blogging Platforms	HOST	Web hosting services, blogging and other online publishing platforms.
23	Search Engines	SRCH	Search engines and portals.
24	Gaming	GAME	Online games and gaming platforms, excluding gambling sites.
25	Culture	CULTR	Content relating to entertainment, history, literature, music, film, books, satire and humour
26	Economics	ECON	General economic development and poverty related topics, agencies and funding opportunities
27	Government	GOVT	Government-run websites, including military sites.
28	E-commerce	COMM	Websites of commercial services and products.
29	Control content	CTRL	Benign or innocuous content used as a control.
30	Intergovernmental Organizations	IGO	Websites of intergovernmental organizations such as the United Nations.
31	Miscellaneous content	MISC	Sites that don't fit in any category (XXX Things in here should be categorised)

IP addresses and other information

OONI does not collect or store users' IP addresses deliberately. OONI takes measures to remove them from the collected measurements, to protect its users from [potential risks](#). However, there may be instances where users' IP addresses and other potentially personally-identifiable information are unintentionally collected, if such information is included in the HTTP headers or other metadata of measurements. For example, this can occur if the tested websites include tracking technologies or custom content based on a user's network location.

Network measurements

The types of network measurements that OONI collects depend on the types of tests that are run. Specifications about each OONI test can be viewed through its [git repository](#), and details about what collected network measurements entail can be viewed through [OONI Explorer](#) or through [OONI's measurement API](#).

In order to derive meaning from the measurements collected, OONI processes the data types mentioned above to answer the following questions:

- Which types of OONI tests were run?
- In which countries were those tests run?
- In which networks were those tests run?
- When were tests run?
- What types of network interference occurred?
- In which countries did network interference occur?
- In which networks did network interference occur?
- When did network interference occur?
- How did network interference occur?

To answer such questions, OONI's pipeline is designed to answer such questions by processing network measurements data to enable the following:

- Attributing measurements to a specific country.
- Attributing measurements to a specific network within a country.
- Distinguishing measurements based on the specific tests that were run for their collection.
- Distinguishing between “normal” and “anomalous” measurements (the latter indicating that a form of network tampering is likely present).
- Identifying the type of network interference based on a set of heuristics for DNS tampering, TCP/IP blocking, and HTTP blocking.
- Identifying block pages based on a set of heuristics for HTTP blocking.
- Identifying the presence of “middle boxes” within tested networks.

According to OONI, false positives may occur within the processed data due to a number of reasons. DNS resolvers (operated by Google or a local ISP) often provide users with IP addresses that are closest to them geographically. While this may appear to be a case of DNS tampering, it is actually done with the intention of providing users with faster access to websites. Similarly, false positives may emerge when tested websites serve different content depending on the country that the user is connecting from, or in the cases when websites return failures even though they are not tampered with.

Furthermore, measurements indicating HTTP or TCP/IP blocking might actually be due to temporary HTTP or TCP/IP failures, and may not conclusively be a sign of network interference. It is therefore important to test the same sets of websites across time and to cross-correlate data, prior to reaching a conclusion on whether websites are in fact being blocked.

Since block pages differ from country to country and sometimes even from network to network, it is quite challenging to accurately identify them. OONI uses a series of heuristics to try to guess if the page in question differs from the expected control, but these heuristics can often result in false positives. For this reason OONI only says that there is a confirmed instance of blocking when a block page is detected.

Upon collection of more network measurements, OONI continues to develop its data analysis heuristics, based on which it attempts to accurately identify censorship events.

The full list of country-specific test lists containing confirmed blocked websites in Myanmar, Cambodia, Hong Kong, Indonesia, Malaysia, Philippines, Thailand, and Vietnam can be viewed here: <https://github.com/citizenlab/test-lists>.

Verifying OONI measurements

Confirmed blocked OONI measurements were based on fingerprints recorded here <https://github.com/ooni/blocking-fingerprints>. These fingerprints are based on either DNS or HTTP blocking. Fingerprints recorded as confirmed blockings are either those implemented nationally or by ISPs.

Hence, heuristics as below were run on raw measurements on all countries under iMAP to further confirm blockings.

Firstly, IP addresses with more than 10 domains were identified. Then each of the IP address was checked for the following:

Does the IP in question point to a government blockpage?					
Yes	No, page timed out or shows Content Delivery Network (CDN) page.				
↓	↓				
Confirmed blocking	What information can we get about the IP by doing a whois lookup?				
	Government entity	Local ISP ⁴⁴	CDN ⁴⁵ / Private IP		
	↓	↓	↓		
	Confirmed blocking	Likely Blocked or Inaccessible	Do we get a valid TLS certificate for one of the domains in question when doing a TLS handshake and specifying the SNI		
			Yes	No, there were blocking fingerprints found.	No, timed out
			↓	↓	↓
			False positive	Confirmed blocking	Sampled measurement is analyzed on OONI Explorer.

When blocking is determined, any domain redirected to these IP addresses would be marked as 'dns.confirmed'.

⁴⁴ In the case of India, there was [evidence](#) of popular websites hosting their site on the ISPs network for quicker loading times as the ISPs sometimes offer such edge networking services, hence websites redirected to local websites not marked as blocked.

⁴⁵ In general, websites redirected to popular CDN such as CloudFlare, Amazon, Google, etc. are marked as not blocked.

Secondly, HTTP titles and bodies were analyzed to determine blockpages. This [example](#) shows that the HTTP returns the text ‘The URL has been blocked as per the instructions of the DoT in compliance to the orders of Court of Law’. Any domain redirected to these HTTP titles and bodies would be marked as ‘http.confirmed’.

As a result, false positives are eliminated and more confirmed blockings are obtained.

In the [2022 report](#), only confirmed blockings based on OONI or new fingerprints were reported.

For this round of reporting in 2023, we had also further identified confirmed blockings by verifying blockings shown in news reports with OONI measurements. This is because there were blockings that could be not identified using the DNS or HTTP fingerprints. Typically, these websites were redirected to an unknown or bogon IP address, or had other unknown errors which are ambiguous on whether they are true or false positives of censorship. Hence, based on the news reports where the blocked websites were cited, confirmed blockings were further found by comparing available measurements on OONI. In particular for this study, we would mark them as confirmed blockings if there are more than 30 measurements and have an anomaly rate of more than 1% throughout the one-year period of study, in addition to manually checking the OONI measurements by cross-checking across networks, countries and time periods.

For this round of reporting in 2024, the confirmed blockings were further consolidated based on OONI’s existing fingerprints and heuristics processed on the data during the coverage period, in addition to taking into account a weighted anomaly ratio, measurement count and past analysis of the country. In summary, these were the rules applied to obtain this year’s list of confirmed and likely blockings.

Confirmed blockings		Likely blockings or inaccessible
Malaysia	Confirmed by OONI only	None
Myanmar	<ul style="list-style-type: none"> Confirmed by heuristics (govt block page) Confirmed by OONI (govt block page) 	High weighted anomaly ratio and confirmed by news report/ block notice
Thailand	<ul style="list-style-type: none"> Confirmed by heuristics (govt block page) Confirmed by OONI (govt block page) 	High weighted anomaly ratio
Philippines	<ul style="list-style-type: none"> Confirmed by heuristics (govt block page) Confirmed by OONI (govt block page) Confirmed by news report/ block notice 	High weighted anomaly ratio
India	<ul style="list-style-type: none"> Confirmed by OONI with at least 5 counts Confirmed by heuristics (govt block pages) 	High weighted anomaly ratio
Indonesia	<ul style="list-style-type: none"> Confirmed by OONI with at least 5 counts Confirmed by heuristics (govt block pages) 	High weighted anomaly ratio
Vietnam	<ul style="list-style-type: none"> Confirmed by heuristics (govt block page) Confirmed by news report/ block notice 	<ul style="list-style-type: none"> High weighted anomaly ratio Confirmed by OONI (due to being ISP redirects)
Cambodia	<ul style="list-style-type: none"> Confirmed by news report/ block notice 	<ul style="list-style-type: none"> High weighted anomaly ratio Confirmed by OONI (due to being ISP redirects)
Hong Kong	None	High weighted anomaly ratio

Weighted anomaly ratio: It is calculated by finding the ratio of the Anomaly and Confirmed counts over the total measurements per ASN factoring weights based on number of measurements per domain and per ASN. A high anomaly ratio is when the P90 of the anomaly ratio of a domain exceeds 90%.