


IPv6 Readiness Report

malaysiakini.com — malaysiakini.com

Category: News Portal • Generated: 20 Apr 2026, 21:18 MYT • Last Checked: 07 Mar 2026, 01:17 MYT • Verification ID: 3f1197c1-9a65-4bde-8f96-320c7c53b667

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>

Audit trail: <https://ipv6.my6.my/audit/3f1197c1-9a65-4bde-8f96-320c7c53b667>

 Partially Compliant <small>MGv6C-1.0</small>	82% Partial Support	IPv6-ONLY READINESS Website: ✓ Ready DNS: ✓ Ready Email: ✗ Not Ready
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IPv6 ADDRESSES 2606:4700:3033::ac43:ac96 2606:4700:3032::6815:3fe7	IPv4 ADDRESSES 104.21.63.231 172.67.172.150
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Network Information (WHOIS / RDAP)

	IPv6 Network	IPv4 Network
Organization	Cloudflare, Inc.	Cloudflare, Inc.
Country	US	US
ASN	AS13335	AS13335
ASN Name	CLOUDFLARENET - Cloudflare, Inc., US	CLOUDFLARENET - Cloudflare, Inc., US
Network (CIDR)	2606:4700::/32	104.16.0.0/12

Web Services (35%)				8 / 8
#	CHECK	RESULT	DETAIL	
1	AAAA Record	PASS	2606:4700:3033::ac43:ac96, 2606:4700:3032::6815:3fe7	
2	Globally Routable IPv6	PASS	All addresses are globally routable.	
3	HTTP over IPv6	PASS	HTTP (port 80) responds over IPv6 — 100ms TTFB.	
4	HTTPS over IPv6	PASS	HTTPS (port 443) responds over IPv6 — 78ms TTFB.	
5	IPv6-Only Reachability	PASS	Site is fully reachable via IPv6-only.	
6	TLS Certificate Valid (IPv6)	PASS	Certificate valid — issued by C = US, O = Let's Encrypt, CN = E8, expires May 8 16:27:02 2026 GMT	
7	Dual-Stack (IPv4 + IPv6)	PASS	Domain has both A and AAAA records.	
8	HTTP/3 (QUIC)	PASS	Alt-Svc: h3 header detected.	

DNS & DNSSEC (25%)				3 / 5
#	CHECK	RESULT	DETAIL	
1	NS Has AAAA Record	PASS	Nameserver has IPv6 address.	
2	NS Reachable via IPv6	PASS	Nameserver is reachable via IPv6 on port 53.	
3	NS Answers Queries via IPv6	PASS	DNS queries answered over IPv6.	
4	DNSSEC Validated	FAIL	DNSSEC validation failed or zone is unsigned.	
5	Reverse DNS (PTR)	FAIL	No PTR record found.	
6	DS Record at Parent	FAIL	No DS record at parent.	
7	RRSIG Valid	FAIL	No valid RRSIG found.	
8	Signing Algorithm	INFO	No DNSKEY record found.	

Email Services (25%) 4 / 6

#	CHECK	RESULT	DETAIL
1	MX Record Exists	PASS	MX record found.
2	MX Server Has IPv6	PASS	MX server has AAAA record.
3	SMTP Reachable via IPv6	FAIL	SMTP is not reachable over IPv6.
4	STARTTLS over IPv6	FAIL	STARTTLS not available over IPv6.
5	SPF Record	PASS	SPF record found.
6	DKIM Selector	INFO	DKIM selector found: google._domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	104.21.63.231, 172.67.172.150
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 88ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 78ms TTFB.

Audit Trail & Evidence Record

Verification ID	3f1197c1-9a65-4bde-8f96-320c7c53b667
Domain	malaysiakini.com
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:17:02 MYT
Finished	07 Mar 2026, 01:17:30 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/3f1197c1-9a65-4bde-8f96-320c7c53b667

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	ab0d1297bc2b7bae076fa8c00f4de3699d6e31a061af52e0191de8667772a17e
http_headers	f10f2da71403bfc3f438863b568a5b2ed99f7ca2f29899dba57db22a2078658c
dns_responses	a17508ce55752493951e5604052da061511f813eb03ba4b756936ccc9d490520
tls_handshake	a2d4fea0f47a46318d078403e4c965fc0447e731e7fa6f4c21bebd40bec43e62
connectivity_log	1ec838bbde109a158ab7da86f94ac90fb960fc313858461123e0leadcb21eacd
dns_resolution_times	9b9245b1224ab898ea1ad120556b61a733650fedbad15d8026bb07a371ff50f5

Test Node Identity

Os	Linux srv1440888 6.8.0-101-generic #101-Ubuntu SMP PREEMPT_DYNAMIC Mon Feb 9 10:15:05 UTC 2026 x86_64
Hostname	srv1440888
Php Version	8.3.30
Server Ipv4	76.13.221.142
Server Ipv6	2a02:4780:5e:2789::1

DNS Resolution Performance

Comparison of A (IPv4) vs AAAA (IPv6) query times across resolvers and transports. Shows median (p50) and 95th percentile (p95) of 3 samples per tuple.

Resolver	Transport	A p50 (ms)	A p95 (ms)	AAAA p50 (ms)	AAAA p95 (ms)	Delta (ms)
System	Default	7.72	7.92	16.78	17.24	+9.1
Google	IPv4	20.83	32.33	26.84	33.94	+6
Google	IPv6	25.74	29.22	20.99	32.89	-4.8
Cloudflare	IPv4	8.86	18.91	7.95	17.98	-0.9
Cloudflare	IPv6	21.73	30.4	14.96	18.75	-6.8

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 34142
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
malysiakini.com. 300 IN A 104.21.63.231
malysiakini.com. 300 IN A 172.67.172.150
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 54819
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
com. 900 IN SOA a.gtld-servers.net. nstld.verisign-grs.com. 1772788631 1800 900 604800 900
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 116
;; flags: qr rd ra; QUERY: 1, ANSWER: 7, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
malysiakini.com. 300 IN MX 10 aspmx.l.google.com.
malysiakini.com. 300 IN MX 30 aspmx4.googlemail.com.
malysiakini.com. 300 IN MX 30 aspmx3.googlemail.com.
malysiakini.com. 300 IN MX 30 aspmx2.googlemail.com.
malysiakini.com. 300 IN MX 30 aspmx5.googlemail.com.
malysiakini.com. 300 IN MX 20 alt1.aspmx.l.google.com.
malysiakini.com. 300 IN MX 20 alt2.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18917
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
malysiakini.com. 21600 IN NS dan.ns.cloudflare.com.
malysiakini.com. 21600 IN NS erin.ns.cloudflare.com.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 19154
;; flags: qr rd ra; QUERY: 1, ANSWER: 11, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
malysiakini.com. 300 IN TXT "atlassian-domain-verification=NRv8oqfXeD8RvaGYxY+Lpv/dBU/Mi0Ri+NShXtQ1kYJ1EjXENMkyY86ixtbd+f5"
malysiakini.com. 300 IN TXT "facebook-domain-verification=3cc0bqy9bed09mee64q4y8bcuz7hik"
malysiakini.com. 300 IN TXT "v=spf1 ip4:170.187.231.128 ip6:2400:8901::f03c:93ff:feea:f784 mx:mailgun.org include:_spf.google.com include:_spf.mail.yahoo.com ~all"
malysiakini.com. 300 IN TXT "google-site-verification=8zurrtm0l1AJhm5yQ20ftguLM9tfqWHI9lx265FRXd8"
malysiakini.com. 300 IN TXT "google-site-verification=325Vd2uoVwInsdWLQJIUa9yLERIRvLHMpR9ur57xBKY"
malysiakini.com. 300 IN TXT "atlassian-domain-verification=LyIUkM4r24RuC9zTdNiL2VoXgsmhBvIqZtRQEW1RxFAu8ofxEx6iKB7vUfG9maX"
malysiakini.com. 300 IN TXT "google-site-verification=-o-Dm3S_IK9a26rkqn5GDp8gy4KAemWgMYmYD7MFYU"
malysiakini.com. 300 IN TXT "google-site-verification=me-NPUhNkQPtKx3X8tHfso0LyXs1f4MV5n2R5ngi9s"
malysiakini.com. 300 IN TXT "google-site-verification=PFasLkpkUND280iRjSBhgi8l7c3iiV1ejfMgQtfj6po"
malysiakini.com. 300 IN TXT "google-site-verification=Y4p1liHDvi6QscEh_GJxgTXbVDjh0gkZsIXKOSxLVPI"
malysiakini.com. 300 IN TXT "google-site-verification=0Pj05UFAkLS0Gj8wEWT54Qse_U7VEI_HYPvq7jFzM"
```

AAAA

```
;; Got answer:
```

```
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 2815
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
malaysiakini.com. 300 IN AAAA 2606:4700:3033::ac43:ac96
malaysiakini.com. 300 IN AAAA 2606:4700:3032::6815:3fe7
```

RRSIG

```
dan.ns.cloudflare.com. dns.cloudflare.com. 2396063135 10000 2400 604800 1800
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 24442
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
malaysiakini.com. 1800 IN SOA dan.ns.cloudflare.com. dns.cloudflare.com. 2396063135 10000 2400 604800 1800
```

DNSSEC_VALIDATION

```
; unsigned answer
malaysiakini.com. 1800 IN SOA dan.ns.cloudflare.com. dns.cloudflare.com. 2396063135 10000 2400 604800 1800
```



```
Uwp/vV7M4w4aGunt74koX71n4EdagCsL/Yk5+mAQU0+tue0J0fAV/R6t1k+Xk9s2
HMQFeoxppfzAVC04FdG9M+AC2JWxmFS6BCuh3CEey3fE52Qrj9YM75rtvIjSm/1
Hl+u//Wqxnu1ZQ4jpa+VpuZiG0lWrqSP9eogd0hCGisnyewWJwRQ0qK16wiGyZeR
xs/Bekw65vwSiaVkBruP1tFM0o0Zh4gVa8/qJgMbJbyrwwG97z/PRgmLKCD18z3d
tA0Z7qq7fta0G124uyuB05dqI5J1LVAzKuWdIjT1tP8qCoxSE/xpix8hX2dt3h+/
jujUgFPFZ0EVZ0xSyBNRF3MboGZnYXFUxpNjTWPKpagDHJQmqrAcDmWJnMsFY3JS
uligv30efnWjSQ==
-----END CERTIFICATE-----
---
Server certificate
subject=CN = malaysiakini.com
issuer=C = US, O = Let's Encrypt, CN = E8
---
No client certificate CA names sent
Peer signing digest: SHA256
Peer signature type: ECDSA
Server Temp Key: X25519, 253 bits
---
SSL handshake has read 2360 bytes and written 398 bytes
Verification: OK
---
New, TLSv1.3, Cipher is TLS_AES_256_GCM_SHA384
Server public key is 256 bit
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
Early data was not sent
Verify return code: 0 (ok)
---
DONE
```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	104.21.63.231
Connect Time	28.34 ms
TTFB	98.1 ms
Total Time	98.18 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Date: Fri, 06 Mar 2026 09:17:30 GMT",
  "2": "Connection: keep-alive",
  "3": "Location: https://malaysiakini.com/",
  "4": "Report-To: {\\"group\\":\\"cf-
ne\\",\\"max_age\\":604800,\\"endpoints\\":{\\"url\\":\\"https://a.nel.cloudflare.com/report/v4?s=URopwIpcldH3TbGYIU2EVuqJIyJstxSRigQAb%2Fj7VH76WX1ITG%2BAVLN48eUqqaZUX4S5kShnFv0Ymn9b
5": "Nel: {\\"report_to\\":\\"cf-ne\\",\\"success_fraction\\":0.0,\\"max_age\\":604800}",
  "6": "Server: cloudflare",
  "7": "CF-RAY: 9d804489bab8c887-SIN",
  "8": "alt-svc: h3=\\":443\\":ma=86400",
  "10": "HTTP/2 302",
  "11": "date: Fri, 06 Mar 2026 09:17:30 GMT",
  "12": "location: https://www.malaysiakini.com/",
  "13": "strict-transport-security: max-age=0",
  "14": "report-to: {\\"group\\":\\"cf-
ne\\",\\"max_age\\":604800,\\"endpoints\\":{\\"url\\":\\"https://a.nel.cloudflare.com/report/v4?s=5h6IdZkT%2B%2F1VWr6q5tF6xjHVEKTXsETELSekB0vxMkdDLxTytu%2Fqtpw5M9tZ8Yvno0u76EDZLF8J9w2
15": "nel: {\\"report_to\\":\\"cf-ne\\",\\"success_fraction\\":0.0,\\"max_age\\":604800}",
  "16": "server: cloudflare",
  "17": "cf-ray: 9d804489ffe3fce7-SIN",
  "18": "alt-svc: h3=\\":443\\":ma=86400",
  "20": "HTTP/2 200",
  "21": "date: Fri, 06 Mar 2026 09:17:30 GMT",
  "22": "content-type: text/html; charset=utf-8",
  "23": "nel: {\\"report_to\\":\\"cf-ne\\",\\"success_fraction\\":0.0,\\"max_age\\":604800}",
  "24": "age: 403",
  "25": "x-powered-by: Next.js",
  "26": "strict-transport-security: max-age=0",
  "27": "cache-control: private, max-age=30, must-revalidate",
  "28": "vary: Accept-Encoding",
  "29": "report-to: {\\"group\\":\\"cf-
ne\\",\\"max_age\\":604800,\\"endpoints\\":{\\"url\\":\\"https://a.nel.cloudflare.com/report/v4?s=0A8ntRz8KrexgUUNIV4udjv78jmsVPzNUxiAvGCIi7Cwr1wGfHdQmStQBj7Fua2Y3P1hcApkKnDgHMULQ1L1E
30": "cf-cache-status: HIT",
  "31": "server: cloudflare",
  "32": "cf-ray: 9d80448a3f8ecbe1-SIN",
  "33": "alt-svc: h3=\\":443\\":ma=86400"
}
```

IPv6 HTTP (port 80)

HTTP Status	200
Connected IP	2606:4700:3032::6815:3fe7
Connect Time	22.17 ms
TTFB	88.89 ms
Total Time	88.97 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Date: Fri, 06 Mar 2026 09:17:30 GMT",
  "2": "Connection: keep-alive",
  "3": "Location: https://malaysiakini.com/",
  "4": "Report-To: {\\"group\\":\\"cf-
ne\\",\\"max_age\\":604800,\\"endpoints\\":{\\"url\\":\\"https://a.nel.cloudflare.com/report/v4?s=VCDRUlStr%2F9qERUaeNsttFFyPjRea0Wb65ybgI4wg54b60XISYg8W62oKlWbUmwAt3K6Ktm9DnuVAsCYDbs
5": "Nel: {\\"report_to\\":\\"cf-ne\\",\\"success_fraction\\":0.0,\\"max_age\\":604800}",
  "6": "Server: cloudflare",
  "7": "CF-RAY: 9d8044878b369855-SIN",
  "8": "alt-svc: h3=\\":443\\":ma=86400",
  "10": "HTTP/2 302",
  "11": "date: Fri, 06 Mar 2026 09:17:30 GMT",
```



```
{
  "0": "HTTP/2 302",
  "1": "date: Fri, 06 Mar 2026 09:17:30 GMT",
  "2": "location: https://www.malaysiakini.com/",
  "3": "strict-transport-security: max-age=0",
  "4": "report-to: {\n\"group\":\n\"cf-
nel\", \"max_age\":604800, \"endpoints\": [{\n\"url\":\n\"https://a.nel.cloudflare.com/report/v4?s=woAU9rTxCcoIjnAIJ3wZQHc7N48RmB%2B5YfAD3UAhA6r%2BiKZ00jqfcSb0t2APg1beBCQ0nW5tFKKIY3AChv
nel\", \"report_to\":\n\"cf-nel\", \"success_fraction\":0.0, \"max_age\":604800}],
  "5": "nel: {\n\"report_to\":\n\"cf-nel\", \"success_fraction\":0.0, \"max_age\":604800}",
  "6": "server: cloudflare",
  "7": "cf-ray: 9d804488a8d087a7-SIN",
  "8": "alt-svc: h3=\":443\"; ma=86400",
  "10": "HTTP/2 200",
  "11": "date: Fri, 06 Mar 2026 09:17:30 GMT",
  "12": "content-type: text/html; charset=utf-8",
  "13": "nel: {\n\"report_to\":\n\"cf-nel\", \"success_fraction\":0.0, \"max_age\":604800}",
  "14": "age: 403",
  "15": "x-powered-by: Next.js",
  "16": "strict-transport-security: max-age=0",
  "17": "cache-control: private, max-age=30, must-revalidate",
  "18": "vary: Accept-Encoding",
  "19": "report-to: {\n\"group\":\n\"cf-
nel\", \"max_age\":604800, \"endpoints\": [{\n\"url\":\n\"https://a.nel.cloudflare.com/report/v4?s=ty1HpV8F2%2B7Z8Cqa0nIoN3LxBH84AZt5uo07Da%2FUBVEN5rH01LSApGAVyh8RzA6HcV3fVzLvkz4H7pS1Bj
nel\", \"report_to\":\n\"cf-nel\", \"success_fraction\":0.0, \"max_age\":604800}],
  "20": "cf-cache-status: HIT",
  "21": "server: cloudflare",
  "22": "cf-ray: 9d804488da7af930-SIN",
  "23": "alt-svc: h3=\":443\"; ma=86400"
}
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.009440 0.022312
TCP Connect IPv6 → port 80	301 0.009442 0.023533
TCP Connect IPv4 → port 443	302 0.007222 0.036875
TCP Connect IPv6 → port 443	302 0.007344 0.034067

Test Node Network Evidence

Node Profile	dual stack
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Egress Connectivity

IPv4 Egress	76.13.221.142
IPv6 Egress	2a02:4780:5e:2789::1

Sysctl IPv6 Flags

net.ipv6.conf.all.disable_ipv6	0
--------------------------------	---

IPv6 Routes

```
2a02:4780:5e::/48 dev eth0 proto kernel metric 256 pref medium
fe80::/64 dev eth0 proto kernel metric 256 pref medium
default via 2a02:4780:5e::1 dev eth0 proto static metric 1024 pref medium
```

IPv4 Routes

```
default via 76.13.221.254 dev eth0 proto static
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
```