

IPv6 Readiness Report

kk.gov.my — kkr.gov.my



Scan to verify

Category: Government • Generated: 04 Jul 2026, 22:39 MYT • Last Checked: 04 Jul 2026, 03:09 MYT • Verification ID: be7fc271-f78c-4216-8254-301345e63e76

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

Audit trail: <https://ipv6.my6.my/audit/be7fc271-f78c-4216-8254-301345e63e76>

<p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p>	<p>47%</p> <p>No IPv6 Support</p>	<p>IPv6-ONLY READINESS</p> <p>Website: X Not Ready</p> <p>DNS: X Not Ready</p> <p>Email: X Not Ready</p>
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<p>IPv4 ADDRESSES</p> <p>110.159.226.22</p>
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Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	UNIFI-HOME
Country	MY
ASN	AS4788
ASN Name	TTSSB-MY - TM TECHNOLOGY SERVICES SDN. BHD., MY
Network (CIDR)	110.159.224.0/19

Web Services (35%)				0 / 8
#	CHECK	RESULT	DETAIL	
1	AAAA Record	FAIL	No AAAA record found in DNS.	
2	Globally Routable IPv6	FAIL	IPv6 address is not globally routable.	
3	HTTP over IPv6	FAIL	HTTP is not accessible over IPv6.	
4	HTTPS over IPv6	FAIL	HTTPS is not accessible over IPv6.	
5	IPv6-Only Reachability	FAIL	Site is not reachable when limited to IPv6-only.	
6	TLS Certificate Valid (IPv6)	FAIL	TLS certificate is invalid, expired, or hostname mismatch over IPv6.	
7	Dual-Stack (IPv4 + IPv6)	FAIL	Domain is IPv6-only or IPv4-only.	
8	HTTP/3 (QUIC)	FAIL	No HTTP/3 support 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	FAIL	Nameserver does not answer queries over IPv6.	
4	DNSSEC Validated	PASS	DNSSEC fully validated.	
5	Reverse DNS (PTR)	FAIL	No PTR record found.	
6	DS Record at Parent	PASS	DS record found at parent zone.	
7	RRSIG Valid	PASS	RRSIG signatures are current and valid.	

#	CHECK	RESULT	DETAIL
8	Signing Algorithm	INFO	RSASHA256

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	No common DKIM selector found.
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	110.159.226.22
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 28ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 59ms TTFB.

Audit Trail & Evidence Record

Verification ID	be7fc271-f78c-4216-8254-301345e63e76
Domain	kkf.gov.my
Check Mode	Scheduled
Status	Completed
Started	04 Jul 2026, 03:08:44 MYT
Finished	04 Jul 2026, 03:09:18 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/be7fc271-f78c-4216-8254-301345e63e76

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	462a6415224ef823fec7c2bb9bfeaa6cefe6a8908204ec5c1a01c83ec93c61ae
http_headers	b586525627d38f4d6ab25055e5e075f703157c0cc0505c1f1791cbf31883d7bb
dns_responses	25a4535b74c4f638fea263bc5a3253fce1d0f93921a8c37bb8c8a4cbd897d3f6
tls_handshake	aed45408c2611cb9cdf3218149eb2e8ef79dafc7a3423a02d26862fcd833aca
connectivity_log	62f2eef2d69801ef8c9c7c760f6c4b12f3f1ec1834832a86093fa6ecfbcf5c3
dns_resolution_times	d5f5d6e42109d3ff7ddb8ee363229ffa9be775f3ac952d14123de72d54e36c24

Test Node Identity

Os	Linux srv1440888 6.8.0-124-generic #124-Ubuntu SMP PREEMPT_DYNAMIC Tue May 26 13:00:45 UTC 2026 x86_64
Hostname	srv1440888
Php Version	8.3.32
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	22.85	36.46	41.66	49.16	+18.8
Google	IPv4	52.8	56.68	53.05	61.03	+0.3
Google	IPv6	62.8	81.58	56.32	60.21	-6.5
Cloudflare	IPv4	28.56	41.8	38.66	48.16	+10.1
Cloudflare	IPv6	41.51	49.05	58.85	59.81	+17.3

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 54503
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kk.gov.my. 003600 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026042437 10800 3600 172800 38400
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39630
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kk.gov.my. 0086372 IN DS 16051 8 1 8D267BB2C1D7C38F0A089A42885A57AC10E9C827
kk.gov.my. 0086372 IN DS 16051 8 2 5E64474DA2326D534F1D46DCD6120A9DB84DF554C9A979F3A7FD474A 1CF2B728
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14958
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kk.gov.my. 00300 IN MX 5 alt2.aspmx.l.google.com.
kk.gov.my. 00300 IN MX 10 alt4.aspmx.l.google.com.
kk.gov.my. 00300 IN MX 5 alt1.aspmx.l.google.com.
kk.gov.my. 00300 IN MX 1 aspmx.l.google.com.
kk.gov.my. 00300 IN MX 10 alt3.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 62976
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kk.gov.my. 0038400 IN NS dns2.gitn.net.my.
kk.gov.my. 0038400 IN NS dns1.gitn.net.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14234
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kk.gov.my. 003600 IN TXT "_globalsign-domain-verification=ol-tF44wyYvNcetsK_OCEusDH0hCLFapPaKuVQFf"
kk.gov.my. 003600 IN TXT "google-site-verification=G-NR6IT-I4jFeBjH0p7Zhq8IIT1tk3sgklgJbSNs_oc"
kk.gov.my. 003600 IN TXT "MS=ms58191056"
kk.gov.my. 003600 IN TXT "v=spf1 ip4:103.8.147.12/30 ip4:219.92.54.177/32 ip4:103.156.82.32/29 ip4:103.156.83.32/29 include:_spf.google.com ~all"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 32558
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kk.gov.my. 003600 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026042437 10800 3600 172800 38400
```

RRSIG

```
dns1.gitn.net.my. root.dns1.gitn.net.my. 2026042437 10800 3600 172800 38400
SOA 8 3 38400 20260802113005 20260703103005 52179 kkr.gov.my. e92bm+MX1GMzIUJoQ138rzqcDUR0TL9pC+Q0Bh0L4Myqs6zuAhtvBs4w
f4EY9EGHpI4LXTFsKL7+hrfnJnpZ0NWeQhvk1lat9K0CWG+GqWHJbpLa tFpJZGDemGdVtyVXEROMwQ0zPNs8GCwCpAsANX0qXUdB0PD9gdw8Zzu dtI=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 15162
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kk.gov.my. 38372 IN DNSKEY 256 3 8 AwEAAbQiytYzsWf8VeB7e+eah0WAAhMVHM0RcY/LwcEbaq0QWFFag3C x4hha2vd87MSIVp3uQGUGDSXmfGwxRm5ut8Ev7j1240H/h8+0EfXqtYb
vRxKUIe5rr/ImTI+bCVR0en3tm9y/dqCqm0+t5vGF9F3Efrtgbz0Dt0h xo/Jr2i+YPmxLBVe6B40+wLHHyzcUYpASv+D7fTHs+iR+GM5oDzyd5R1
VkJy0rotew3lM8ae8jBgBR1NE3bxaLxRTcVuaFAaVuU2hTHiBNWgiyqm sypvnM0APTUJ0ni/28RVRo+asYnyovB9gz/jIJb0qvff+qtV12PsY3Mey zCJ6FNLDwa0=
kk.gov.my. 38372 IN DNSKEY 256 3 8 AwEAAANGqwbWFAAPXLIINFN/uNu0x6PomvYrMJuzXJohV1DreZhYSV3T WNWLLeyKHVzVCyEPFfgj/09ner9Yo4wr6QCtL196guBUFrtQstJRNKW
wBh0e09N5wFKCzLNxDZ5y7+q6pavrp75c182wXWCIYT4ynhPK/G3coVW /7vWtVir
```

DNSSEC_VALIDATION

```
; fully validated
kk.gov.my. 38372 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026042437 10800 3600 172800 38400
kk.gov.my. 38372 IN RRSIG SOA 8 3 38400 20260802113005 20260703103005 52179 kkr.gov.my. e92bm+MX1GMzIUJoQ138rzqcDUR0TL9pC+Q0Bh0L4Myqs6zuAhtvBs4w
f4EY9EGHpI4LXTFsKL7+hrfnJnpZ0NWeQhvk1lat9K0CWG+GqWHJbpLa tFpJZGDemGdVtyVXEROMwQ0zPNs8GCwCpAsANX0qXUdB0PD9gdw8Zzu dtI=
```



```
b20vcmVwb3NpdG9yeS8wDQYJKoZIhvcNAQELBQADggEBAJmQyC1fQorUC2bbmANz
EdSIhLIoU4r7rd/9c446ZwTbw1MUcBQJfMPg+NccmBqixD7b6QDjynCy8SIwIVbb
0615XoFYC20UgDX1b10d65pHBf9ZjQCxQNqQmJYaumxtf4z1s4dfjGRzNpZ5eWl0
6r/4ngGPoJVpjemEuunl1Ig423g7mNA2eymw0LIYkN5S0wCuaiFIFJ6GLazhgDEw
fpoLu4usBC0mmQDo8dIm7A9+04orkjgTHY+GzYZSR+Y0fFukAj6KYXwidlNaLFMz
hriSqHkvoFlShx8xpfywgVcvzfT03PYkz6fiNJBonf6q8amaEsybwMbdqKwIX7e
SPY=
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = KUALA LUMPUR, L = KUALA LUMPUR, O = KEMENTERIAN KERJA RAYA, CN = *.kk.gov.my
issuer=C = BE, O = GlobalSign nv-sa, CN = GlobalSign RSA OV SSL CA 2018
---
No client certificate CA names sent
Peer signing digest: SHA256
Peer signature type: RSA-PSS
Server Temp Key: X25519, 253 bits
---
SSL handshake has read 3451 bytes and written 405 bytes
Verification: OK
---
New, TLSv1.2, Cipher is ECDHE-RSA-AES256-GCM-SHA384
Server public key is 2048 bit
Secure Renegotiation IS supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
```

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	400
Connected IP	110.159.226.22
Connect Time	10.65 ms
TTFB	28.01 ms
Total Time	28.06 ms

Response Headers:

```
[
  "HTTP/1.1 400 Bad Request",
  "Date: Fri, 03 Jul 2026 19:09:18 GMT",
  "Server: Apache",
  "X-Powered-By: NasRule",
  "Cache-Control: no-cache, private",
  "X-Generator: NasRule",
  "X-Content-Type-Options: nosniff",
  "Connection: close",
  "Content-Type: text/plain; charset=UTF-8",
  "Set-Cookie: cookiesession1=678A8C31744F4DEEEA70CD8956C10509;Expires=Sat, 03 Jul 2027 19:09:25 GMT;Path=/;HttpOnly"
]
```

IPv4 HTTPS (port 443)

HTTP Status	400
Connected IP	110.159.226.22
Connect Time	9.27 ms
TTFB	51.14 ms
Total Time	51.18 ms

Response Headers:

```
[
  "HTTP/1.1 400 Bad Request",
  "Date: Fri, 03 Jul 2026 19:09:18 GMT",
  "Server: Apache",
  "X-Powered-By: NasRule",
  "Cache-Control: no-cache, private",
  "X-Generator: NasRule",
  "X-Content-Type-Options: nosniff",
  "Connection: close",
  "Content-Type: text/plain; charset=UTF-8",
  "Set-Cookie: cookiesession1=678A8C329E262E6EF428E62CC13A548D;Expires=Sat, 03 Jul 2027 19:09:25 GMT;Path=/;HttpOnly"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	400 0.012441 0.028519
TCP Connect IPv4 → port 443	400 0.009997 0.073834

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
10.6.101.0/24 dev wg0 scope link
10.6.102.0/24 dev wg0 scope link
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
172.29.0.0/24 dev wg0 scope link
```