



# IPv6 Readiness Report

kpkt.gov.my — kpkt.gov.my

Category: Government • Generated: 20 Apr 2026, 21:24 MYT • Last Checked: 07 Mar 2026, 01:33 MYT • Verification ID: 6959507a-fe10-44b3-a2f4-a17e35b5fe5a

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

Audit trail: <https://ipv6.my6.my/audit/6959507a-fe10-44b3-a2f4-a17e35b5fe5a>

 <b>Non-Compliant</b> MGv6C-1.0	 <b>50%</b> Partial Support	<b>IPV6-ONLY READINESS</b> Website: <span style="color: red;">✗ Not Ready</span> DNS: <span style="color: green;">✓ Ready</span> Email: <span style="color: green;">✓ Ready</span>
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<b>IPV4 ADDRESSES</b> 218.208.4.136
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## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	TM TECHNOLOGY SERVICES SDN BHD
Country	MY
ASN	AS4788
ASN Name	TTSSB-MY TM TECHNOLOGY SERVICES SDN. BHD., MY
Network (CIDR)	218.208.0.0/16

Web Services (35%) <span style="float: right;">0 / 8</span>			
#	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%) <span style="float: right;">4 / 5</span>			
#	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	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.
8	Signing Algorithm	INFO	RSASHA256

**Email Services** (25%) 6 / 6

#	CHECK	RESULT	DETAIL
1	<b>MX Record Exists</b>	<b>PASS</b>	MX record found.
2	<b>MX Server Has IPv6</b>	<b>PASS</b>	MX server has AAAA record.
3	<b>SMTP Reachable via IPv6</b>	<b>PASS</b>	SMTP port 25 responds over IPv6.
4	<b>STARTTLS over IPv6</b>	<b>PASS</b>	STARTTLS supported over IPv6.
5	<b>SPF Record</b>	<b>PASS</b>	SPF record found.
6	<b>DKIM Selector</b>	<b>INFO</b>	No common DKIM selector found.
7	<b>DMARC Record</b>	<b>PASS</b>	DMARC record found.

**IPv4 Baseline** (15%) 1 / 3

#	CHECK	RESULT	DETAIL
1	<b>A Record</b>	<b>PASS</b>	218.208.4.136
2	<b>HTTP over IPv4</b>	<b>FAIL</b>	HTTP is not accessible over IPv4.
3	<b>HTTPS over IPv4</b>	<b>FAIL</b>	HTTPS is not accessible over IPv4.

### Audit Trail & Evidence Record

Verification ID	6959507a-fe10-44b3-a2f4-a17e35b5fe5a
Domain	kpkt.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:30:13 MYT
Finished	07 Mar 2026, 01:33:35 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/6959507a-fe10-44b3-a2f4-a17e35b5fe5a

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	179ad1c8878ddc45de987ae7ed53f28813518438aef349944a510348a69e5fb2
http_headers	87f9739bb1c4a68e0ca392e40bf7b21b55a6268204f5c1be3f9cdc40eb6c6f27
dns_responses	58a6106ffc961a1b8bd8e0197840b5a9e7877fd218513d729169a693452e9f4
tls_handshake	9d242375e60deb5446a98b4c3c6fbc98e1bbb3a533ae7e27d252cecefae2ae21
connectivity_log	c571529628ae93d3d5180dec20e307692d772428bf4569b1feeb29b40bc18e78
dns_resolution_times	9791c95ce23cb6e870100202f96b499e67ba37ce7bffe0091e2bc7cfc068384

### 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	7.94	7.95	18.27	20.69	+10.3
Google	IPv4	14	26.02	17.07	26.84	+3.1
Google	IPv6	27.63	38.33	25.26	38.94	-2.4
Cloudflare	IPv4	19.06	23.79	8	18.86	-11.1
Cloudflare	IPv6	51.04	56.21	9.25	50.78	-41.8



**DNS Evidence**

**A**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 7194
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. 2964 IN A 218.208.4.136
```

**DS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 32731
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. 20892 IN DS 33115 8 2 63185401485B416C3F4578215B842CA7FC51D6D9365BC5B2105D4720 2502063D
kpkt.gov.my. 20892 IN DS 33115 8 1 48453A137E41EC9220266F2C86B05EF55F5DF6A2
```

**MX**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 33339
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. 83 IN MX 1 aspmx.l.google.com.
kpkt.gov.my. 83 IN MX 5 alt2.aspmx.l.google.com.
kpkt.gov.my. 83 IN MX 5 alt1.aspmx.l.google.com.
kpkt.gov.my. 83 IN MX 10 alt4.aspmx.l.google.com.
kpkt.gov.my. 83 IN MX 10 alt3.aspmx.l.google.com.
```

**NS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 65391
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. 1640 IN NS dns1.gitn.net.my.
kpkt.gov.my. 1640 IN NS dns2.gitn.net.my.
```

**TXT**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 28230
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. 300 IN TXT "google-site-verification=nGES1sK1gly7x3gL5U1FIdx8wRrKuHLrsPbM_k10KI0"
kpkt.gov.my. 300 IN TXT "globalsign-domain-verification=6iRfiLUvuK1kD8Wbc9Lv3cTcuNG_9o_kkS-A9YW4mI"
kpkt.gov.my. 300 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: 21499
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
kpkt.gov.my. 1800 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030331 3600 900 3600000 3600
```

**RRSIG**

```
dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030331 3600 900 3600000 3600
```

```
SOA 8 3 3600 20260405085123 20260306075123 9459 kpkt.gov.my. AV2qI5m3Poq5PZIWn9uzp8y0Ia6DwxXTWdLSJubvhvaUdbW3n1HRMJih
99zEzIh6LM+MjXtBYx/EhVftYHaSLZtaJtTCpu0cu2aIP1+4fL8egkKv JzsDf0T9LXiKaL0Py0C/MqEvySGaYbaxHR4qKsIND6KBKTIbB0YcwtJ z9o=
```

DNSKEY

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 36662
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpkt.gov.my. IN DNSKEY 256 3 8 AwEAAbefTUit1ALlz9okRvuu3pBASKznXbTN2c+Ge9u10PFfeTLkKBFZk R2um5aI/9bp+dBvSHVTdDCbUDpG8rEoLcCigZ7D0Z2buLfrvFtVAW4hV
Kh/8FXTq3m38mrdXhjAnp3RnCIAK1R1N0cJnLS35MR7ickBbMj3xqT9L tLXI1GJd
kpkt.gov.my. IN DNSKEY 257 3 8 AwEAAAdpJGaMsU0qiWr59uRdhyo9gX+Mp9PWozNmBjJbX88BU3xb0uZfP fssLS9jHPPrEjJofF7otkHmWiiKhRj+r8Ct9r7dIL8metfuyCC/QRQH2
H0+DaC0f+QJIBx9a7Fbwh/ocbH08LzweGzPQSZbVLfmzjlxqppxWmmxz f9IRZ5ydAhdF0UfJs2TgG7Ijm+ho7cQsfRhg/SXXgmUKxKDjiwAAAzvZ
8Yr5aqKqb3gFBLTkLDQztdYrCTgLbIc1kSIQWgVpynRm5PABjR1hW4V4 1DdFdeQEaHr8x0pKI6fVKdQXq7g49L2uVJpPozjuAjkrnqtC8UMKEEGG XEaAHH/KUyM=
```

DNSSEC\_VALIDATION

```
; fully validated
kpkt.gov.my. IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030331 3600 900 3600000 3600
kpkt.gov.my. IN RRSIG SOA 8 3 3600 20260405085123 20260306075123 9459 kpkt.gov.my. AV2qI5m3Poq5PZIWn9uzp8y0Ia6DwxXTWdLSJubvhvaUdbW3n1HRMJih
99zEzIh6LM+MjXtBYx/EhVftYHaSLZtaJtTCpu0cu2aIP1+4fL8egkKv JzsDf0T9LXiKaL0Py0C/MqEvySGaYbaxHR4qKsIND6KBKTIbB0YcwtJ z9o=
```

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## TLS Handshake Evidence

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### IPv4 Connection

IP Used	218.208.4.136
IP Version	4

```
4087E475A1730000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
4087E475A1730000:error:10000067:BI0 routines:BI0_connect:connect error:../crypto/bio/bio_sock2.c:116:
connect:errno=110
```

## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.23 ms
Error	Failed to connect to kpkt.gov.my port 80 after 8002 ms: Timeout was reached

### IPv4 HTTPS (port 443)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.8 ms
Error	Failed to connect to kpkt.gov.my port 443 after 8002 ms: Timeout was reached

## Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	000 0.000000 0.000000
TCP Connect IPv4 → port 443	000 0.000000 0.000000

## 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
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### 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
```