IPv6 Readiness Report

kelantan.gov.my — kelantan.gov.my

Scan to verify

Category: Government • Generated: 02 Nov 2026, 03:05 MYT • Last Checked: 08 Aug 2026, 18:13 MYT • Verification ID: a3a7f236-10ff-4fbd-8d83-ddf06855d856
Report generated from National IPv6 Readiness Monitor — https://ipv6.my6.my
Audit trail: https://ipv6.my6.my/audit/a3a7f236-10ff-4fbd-8d83-ddf06855d856

✗
Non-Compliant
MGv6C-1.0

33%
No IPv6 Support

IPV6-ONLY READINESS
Website: ✗ **Not Ready**
DNS: ✗ **Not Ready**
Email: ✗ **Not Ready**

IPV4 ADDRESSES
210.187.31.51

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)	210.187.0.0/17

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%) — 3 / 6

#	CHECK	RESULT	DETAIL
1	**MX Record Exists**	PASS	MX record found.
2	**MX Server Has IPv6**	FAIL	MX server has no IPv6 address.
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%) — 1 / 3

#	CHECK	RESULT	DETAIL
1	**A Record**	PASS	210.187.31.51
2	**HTTP over IPv4**	FAIL	HTTP is not accessible over IPv4.
3	**HTTPS over IPv4**	FAIL	HTTPS is not accessible over IPv4.

Audit Trail & Evidence Record

Verification ID	a3a7f236-10ff-4fbd-8d83-ddf06855d856
Domain	kelantan.gov.my
Check Mode	Manual
Status	Completed
Started	08 Aug 2026, 18:12:45 MYT
Finished	08 Aug 2026, 18:13:47 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/a3a7f236-10ff-4fbd-8d83-ddf06855d856

Integrity Verification

✓ **INTEGRITY VERIFIED**

Algorithm	hmac-sha256-v1
Root Hash	fda2ef648d849bc82d49f32b214dff497567f114ff8db142e97af4747b60f65e
http_headers	2f5b63d0e03b8fcbfc814a53273ae4ecbcfe0c0f9a8ef98111db2a34d2e93cb4
dns_responses	172508849f51b08b52656eb81e855e2618f38b6dc97beac23f0a6129952b9941
tls_handshake	5d5bb05a942d9432b5c9a4d30f7dfc2682d50f887bd8fbd41a9f4a2f15a047ff
connectivity_log	c571529628ae93d3d5180dec20e307692d772428bf4569b1feeb29b40bc18e78
dns_resolution_times	b07fe2f790ba4293d011d2bdcd526012cba611817a4f2873cad241f6811774e7

Test Node Identity

Os	Linux srv1440888 6.8.0-136-generic #136-Ubuntu SMP PREEMPT_DYNAMIC Wed Jul 1 21:53:05 UTC 2026 x86_64
Hostname	srv1440888
Php Version	8.3.33
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	22.94	23.07	11.56	21.9	-11.4
Google	IPv4	88.32	165.71	90.35	90.64	+2
Google	IPv6	76.9	361.86	96.03	296.37	+19.1
Cloudflare	IPv4	27.39	34.3	41.53	43.45	+14.1
Cloudflare	IPv6	57.84	78.79	65.49	85.91	+7.6

DNS Evidence

A

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 31100
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.	53223	IN	A	210.187.31.51
```

DS

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 63128
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.	53201	IN	DS	26497 8 2 6724F159326EA3A5BF4BAEEB904C9FBD4A0E74CE24436CF5510410FD E74AC07E
kelantan.gov.my.	53201	IN	DS	26497 8 1 C3AFAD29567252A0FB6AAC230802A3070ECB6CF2
```

MX

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 21589
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.	53224	IN	MX	10 mail.kelantan.gov.my.
```

NS

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 65089
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 6

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.	3600	IN	NS	ns5.kelantan.gov.my.
kelantan.gov.my.	3600	IN	NS	ns1.kelantan.gov.my.
kelantan.gov.my.	3600	IN	NS	ns2.kelantan.gov.my.
```

TXT

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 33840
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.	3600	IN	TXT	"yahoo-verification-key=JEBcvPwp0Gp8DcGC1kbh+lyfvsSQe8XgHkgShh1QCxk="
kelantan.gov.my.	3600	IN	TXT	"v=spf1 ip4:210.187.31.14/24 -all"
kelantan.gov.my.	3600	IN	TXT	"google-site-verification=GFvCCsrlfEXjjBSOx7vlvlzucozsU3I4lpbYIv_3k-k"
```

AAAA

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 24420
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kelantan.gov.my.	1800	IN	SOA	ns1.kelantan.gov.my. admin.dnsvault.net. 2026051357 10800 3600 604800 1800
```

RRSIG

```
ns1.kelantan.gov.my. admin.dnsvault.net. 2026051357 10800 3600 604800 1800
SOA 8 3 86400 20260906191953 20260807181953 7863 kelantan.gov.my. ZlF0VPkyI7zsin1itcJ2I/Wha2mw2JQaHsDyPQmFxBbeJ+EOyuKx8U5i
```

```
H4bgmReOr8q9t+7oHrp+Ga0WvckMUAsRNEz3P5vfxdHd1nQzjigNdjuM hs11z6wX3Y0/MxucwoQt9Y3brh8XYk7Dxxzr3dTtMxSJYT/haAPmVhyq SUQ=
```

DNSKEY

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 450
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kelantan.gov.my.␣53201␣IN␣DNSKEY␣257 3 8 AwEAAcwY8ARQE0UFUbOAIQjzaz4cL8pcCSqRhvzF5lb3Hnyh5zZ8Eppz 4/rK60xm6unRmHPWssDE1yao9xqBrAgu4arQBsRooGHhXmLeq8wBMMRl
cBLrphb7E+v3KSBzHxqijaZOQe4oAojbQJchJDeqOM4Mf/+w05sLlapK 304C+7hxjhy1A74LdA8d12GoEW2dHsmuUMiZmLE4nnh4yFwYW480ZcK/
iFaC+uGLGBtw4i17GBjsInai6IYYLQmyJNTcVU523Kbv7jq7oXDA+jKM 3uLJRF5/BrZ77rn3p82fZH0GJ+PDZcKYSmIEUbCikYAXTW9b5i6gV8XE 4ZYmKFB7jE8=
kelantan.gov.my.␣53201␣IN␣DNSKEY␣256 3 8 AwEAAc+/slEA2AhZqzYXHc3JbOmufEMRSyoPjCU6WKcsbJgmSaD2sYxk XM/Nie19VYYSXawkOendRl/JgRZLPh45d9Q2bKHS3YFrUp3D/PKnxskC
+AYyr47oAJ1DAZMlEL7Oz9DmNtaClcCnVsowZXBQ5D71S1b2bzrchNXI 5IODxJVp
```

DNSSEC_VALIDATION

```
; fully validated
kelantan.gov.my.␣53201␣IN␣SOA␣ns1.kelantan.gov.my. admin.dnsvault.net. 2026051357 10800 3600 604800 1800
kelantan.gov.my.␣53201␣IN␣RRSIG␣SOA 8 3 86400 20260906191953 20260807181953 7863 kelantan.gov.my. ZlF0VPkyI7zsin1itcJ2I/Wha2mw2JQaHsDyPQmFxBbeJ+EOyuKx8U5i
H4bgmReOr8q9t+7oHrp+Ga0WvckMUAsRNEz3P5vfxdHd1nQzjigNdjuM hs11z6wX3Y0/MxucwoQt9Y3brh8XYk7Dxxzr3dTtMxSJYT/haAPmVhyq SUQ=
```

TLS Handshake Evidence

IPV4 Connection

IP Used	210.187.31.51
IP Version	4

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.63 ms
Error	Failed to connect to kelantan.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	8002.36 ms
Error	Failed to connect to kelantan.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

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
fd7a:115c:a1e0::1136:5807 dev tailscale0 proto kernel metric 256 pref medium
fe80::/64 dev eth0 proto kernel metric 256 pref medium
fe80::/64 dev tailscale0 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
```