

IPv6 Readiness Report

kelantan.gov.my — kelantan.gov.my

Category: Government • Generated: 21 Apr 2026, 19:15 MYT • Last Checked: 07 Mar 2026, 01:26 MYT • Verification ID: a49d31e4-566d-4936-9164-012c922624ae

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/a49d31e4-566d-4936-9164-012c922624ae>**Non-Compliant**

MGv6C-1.0

33%**Partial Support****IPv6-ONLY READINESS**Website: **X Not Ready**DNS: **X Not Ready**Email: **X Not Ready****IPv4 ADDRESSES**

210.187.31.4

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	SUKKELANTAN-TMNET
Country	MY
ASN	AS4788
ASN Name	TTSSB-MY TM TECHNOLOGY SERVICES SDN. BHD., MY
Network (CIDR)	210.187.31.0/27

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.
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	210.187.31.4	
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	a49d31e4-566d-4936-9164-012c922624ae
Domain	kelantan.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:22:54 MYT
Finished	07 Mar 2026, 01:26:09 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/a49d31e4-566d-4936-9164-012c922624ae

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	799f739a3fc8f7e6075c0347e7bed7f20ea669bf6b1a3a34d13d90911ec33b6f
http_headers	2c089c4f00aa93a26722eb9063d66faef8cd06239a9c8b718199ca568b039bf7
dns_responses	bc9090e5f31d36cadab32277b2c6b0925204000d9b6b1e86e1278552781e6ec
tls_handshake	0e326892c7c29d24f52feea94eb0aed316e36546cbea73da27a381fbf0ab1c
connectivity_log	c571529628ae93d3d5180dec20e307692d772428bf4569b1feeb29b40bc18e78
dns_resolution_times	4ca49d2b2bf1529905a417eb88cce0746087a03214595337c16825482eca573a

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	30.03	38.52	27.41	27.86	-2.6
Google	IPv4	37.15	52.59	30.48	37.41	-6.7
Google	IPv6	41.33	61.65	30	36.62	-11.3
Cloudflare	IPv4	19.3	20.12	10.21	18.2	-9.1
Cloudflare	IPv6	37.63	46.36	10.9	34.49	-26.7

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24345
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 20730 IN A 210.187.31.4
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 23263
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 21600 IN DS 26497 8 2 6724F159326EA3A5BF4BAEEB904C9FBD4A0E74CE24436CF5510410FD E74AC07E
kelantan.gov.my. 21600 IN DS 26497 8 1 C3AFAD29567252A0FB6AAC230802A3070ECB6CF2
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 23749
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 2071 IN MX 10 mail.kelantan.gov.my.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 34946
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 3600 IN NS ns2.kelantan.gov.my.
kelantan.gov.my. 3600 IN NS ns5.kelantan.gov.my.
kelantan.gov.my. 3600 IN NS ns1.kelantan.gov.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 49452
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 2729 IN TXT "google-site-verification=GfVcCsrlfEXjjB50x7vLvlzucoszU3I4lpbYIv_3k-k"
kelantan.gov.my. 2729 IN TXT "v=spf1 ip4:210.187.31.14/24 -all"
kelantan.gov.my. 2729 IN TXT "yahoo-verification-key=JEBcvPwp0p8DcGC1kbh+lyfvs5Qe8XgHkgShh1QCxk="
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50528
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
kelantan.gov.my. 1315 IN SOA ns1.kelantan.gov.my. admin.dnsvault.net. 2026021205 10800 3600 604800 1800
```

RRSIG

```
ns1.kelantan.gov.my. admin.dnsvault.net. 2026021205 10800 3600 604800 1800
SOA 8 3 86400 20260402013803 20260303003803 7863 kelantan.gov.my. ZE9n5XNod7X3UEY+LUDZaM5z8iAAkPIzC8A8JTL5Aagh1Hr+6bpPsPQs
```

S3osriIrMG106yeYHR8lzhJHfsrYraS3i+dp7zSmXDY2eNdwRaSBB0Lr CQJdMpU0Wem0z/ernoqIV/qjrgXexbYYRr10ajzJoH2hYk2ciM0sHvT/ Jrw=

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18141
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kelantan.gov.my. 21600 IN DNSKEY 256 3 8 AwEAAc+/sLEA2AhZqzYXHc3Jb0muFEMRSyoPjCU6WkcsbJgmSad2sYxk XM/Nie19VYYSXawk0endRl/JgRZLPh45d9Q2bKHS3YFrUp3D/PKnxskC
+AYyr47oAJ1DAZML70z9DmNtaClcCnVsoWZXBQ5D71S1b2bzrchnXI 5I0DxJVp
kelantan.gov.my. 21600 IN DNSKEY 257 3 8 AwEAAcwY8ARQE0UFub0AIQjzaz4cL8pcCSqRhzvF5Lb3Hnyh5zZ8Eppz 4/rK60xm6unRmHPWssDE1yao9xqBrAgu4arQBsrRoogHhXmLeq8wBMMRL
cBLrphb7E+v3KSBzHxqijaZ0Qe4oAobjQJchJDeq0M4Mf/+w05sLlapK 304C+7hxjhy1A74LdA8d12GoEW2dHsmuUMiZmLE4nnh4yFwYw480ZcK/
iFaC+uGLGBtw4i17GBjsInai6IYyLQmyJNTcVU523Kbv7jq7oXDA+jKM 3uLJRF5/BrZ77rn3p82fZH0GJ+PDZcKYSmIEUbCikYAXTW9b5i6gV8XE 4ZYmKFB7jE8=
```

DNSSEC_VALIDATION

```
; fully validated
kelantan.gov.my. 20709 IN SOA ns1.kelantan.gov.my. admin.dnsvault.net. 2026021205 10800 3600 604800 1800
kelantan.gov.my. 20709 IN RRSIG SOA 8 3 86400 20260402013803 20260303003803 7863 kelantan.gov.my. ZE9n5XNod7X3UEY+LUdZaM5z8iAAkPIzC8A8JTL5Aagh1Hr+6bpPsPQs
S3osriIrMG106yeYHR8lzhJHfsrYraS3i+dp7zSmXDY2eNdwRaSBB0Lr CQJdMpU0Wem0z/ernoqIV/qjrgXexbYYRr10ajzJoH2hYk2ciM0sHvT/ Jrw=
```

TLS Handshake Evidence

IPv4 Connection

IP Used	210.187.31.4
IP Version	4

```
40279352F47D0000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
40279352F47D0000: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	8002.19 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	8002.65 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
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Egress Connectivity

IPv4 Egress	76.13.221.142
IPv6 Egress	2a02:4780:5e::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
```