

IPv6 Readiness Report

kpdn.gov.my — kpdn.gov.my



Scan to verify

Category: Government • Generated: 13 Jun 2026, 18:38 MYT • Last Checked: 13 Jun 2026, 00:55 MYT • Verification ID: 3921d852-6e3f-43ef-aa09-835014c695ed

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

Audit trail: <https://ipv6.my6.my/audit/3921d852-6e3f-43ef-aa09-835014c695ed>

<p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p>	<p>37%</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>103.8.146.242</p>

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	PCN
Country	MY
ASN	AS141201
ASN Name	JDN-AS-MY - Jabatan Digital Negara (JDN), MY
Network (CIDR)	103.8.146.2/31

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%) 2 / 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	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.

#	CHECK	RESULT	DETAIL
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	No common DKIM selector found.
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 2 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.8.146.242
2	HTTP over IPv4	FAIL	HTTP is not accessible over IPv4.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 65ms TTFB.

Audit Trail & Evidence Record

Verification ID	3921d852-6e3f-43ef-aa09-835014c695ed
Domain	kpdn.gov.my
Check Mode	Scheduled
Status	Completed
Started	13 Jun 2026, 00:55:00 MYT
Finished	13 Jun 2026, 00:55:55 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/3921d852-6e3f-43ef-aa09-835014c695ed

Integrity Verification

<p>✓ INTEGRITY VERIFIED</p>	
Algorithm	hmac-sha256-v1
Root Hash	e550a0e4628098f506c96bbc11af903a142f63cf8896c7dd59e1281f20c09d44
http_headers	beb0eb8a21e331c65fb45e408652e4ecd3a6a683b9d8f6c24035179f157995b8
dns_responses	1c62a310337f50be247264ac9381e07a9cc6116d1834788efb8a13eb5910fcd3
tls_handshake	be7da8d6a7a979b987779cb88278773cbcf442c78ba9c2c12d4de9dbcaea7003
connectivity_log	ce758b49b202b7def7e70318102db748dc8ffdd792ec31f4f94036ff4aad650d
dns_resolution_times	b0ad150aa28de4f0131843609e830eef8b96ec1362877f7dfb34d8a86ceceee9

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	8.3.31
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	21.06	27.16	15.99	33.41	-5.1
Google	IPv4	31.52	35.75	28.83	41.98	-2.7
Google	IPv6	34.06	43.23	31.66	31.73	-2.4
Cloudflare	IPv4	12.63	22.62	12.54	23.64	-0.1
Cloudflare	IPv6	40.48	45.61	33.47	52.43	-7

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 30174
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kpdn.gov.my. 30174 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026061303 10800 3600 604800 38400
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39191
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
gov.my. 39191 IN SOA e.nic.my. hostmaster.nic.my. 2026046673 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 33125
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kpdn.gov.my. 33125 IN MX 5 alt2.aspmx.l.google.com.
kpdn.gov.my. 33125 IN MX 10 alt4.aspmx.l.google.com.
kpdn.gov.my. 33125 IN MX 10 alt3.aspmx.l.google.com.
kpdn.gov.my. 33125 IN MX 1 aspmx.l.google.com.
kpdn.gov.my. 33125 IN MX 5 alt1.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25697
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kpdn.gov.my. 25697 IN NS dns2.gitn.net.my.
kpdn.gov.my. 25697 IN NS dns1.gitn.net.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 46476
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
kpdn.gov.my. 46476 IN TXT "google-site-verification=xbuveSwJtM4800qqAHaaeLXtki4sFKEAghbWv10-XQ"
kpdn.gov.my. 46476 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: 8055
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kpdn.gov.my. 8055 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026061303 10800 3600 604800 38400
```

RRSIG

```
dns1.gitn.net.my. planning.gitn.com.my. 2026061303 10800 3600 604800 38400
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 17124
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
kpdn.gov.my. IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026061303 10800 3600 604800 38400
```

DNSSEC_VALIDATION

```
; unsigned answer
kpdn.gov.my. IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026061303 10800 3600 604800 38400
```



```
Protocol : TLSv1.2
Cipher   : ECDHE-RSA-AES256-GCM-SHA384
Session-ID: 0FFF58C2ECD94D905FF10E3044B3802BC39EC9835419D881C8F4CCFB3D9EAB40
Session-ID-ctx:
Master-Key: 4B6A46833FAD5128783F1B05FD006EDA112FFE3EBCE23B7BF7A6268B67F970A108862595AA7A30B8984BAECD99873AC
PSK identity: None
PSK identity hint: None
SRP username: None
TLS session ticket lifetime hint: 7200 (seconds)
TLS session ticket:
0000 - ad ac 34 fe 01 e0 36 b7-bc cf 13 c6 78 28 bd f8 ..4..6....x(..
0010 - 2e 1f f2 64 0c e0 49 6f-4d d7 9f 1b 0e 14 af f9 ...d..IoM.....
0020 - fe 60 2a e6 10 51 16 69-43 49 55 45 3e d4 7a a4 .*..Q.iCIUE>.z.
0030 - 3c 62 2c 51 d2 b7 a3 8c-ed fc 82 f4 fd d4 16 f3 <b,Q.....
0040 - 68 8e 95 0f 5b 27 76 65-6b 14 75 f9 62 cc 38 91 h...['vek.u.b.8.
0050 - 4c 90 52 90 5a 3d 1c 33-b0 0b b5 b0 33 48 e5 9a L.R.Z=.3....3H..
0060 - d9 28 f5 ba 1d 94 b2 85-bf 01 26 bc ff f1 d5 f7 .(.....&.....
0070 - 6b 61 ef d1 e3 52 00 18-33 fa 66 da 98 61 19 7c ka...R..3.f..a.|
0080 - 25 da 18 03 72 e3 13 0d-c7 bc b0 2a 00 d9 2c da %...r.....*...
0090 - 6b 21 1a f4 1c 01 e5 5d-4f 9c e2 dd f7 f3 ef d3 k!.....]0.....
00a0 - 5a ee b2 66 f5 50 f3 98-cf f0 67 36 75 50 2a c8 Z..f.P....g6uP*.

Start Time: 1781283345
Timeout : 7200 (sec)
Verify return code: 21 (unable to verify the first certificate)
Extended master secret: yes
---
```

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	0
Connected IP	103.8.146.242
Connect Time	7.8 ms
TTFB	0 ms
Total Time	10003.15 ms
Error	Operation timed out after 10003 milliseconds with 0 bytes received

IPv4 HTTPS (port 443)

HTTP Status	500
Connected IP	103.8.146.242
Connect Time	14.69 ms
TTFB	65.87 ms
Total Time	65.91 ms

Response Headers:

```
[
  "HTTP/1.1 500 Internal Server Error",
  "Content-Length: 38644",
  "Content-Type: text/html"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	500 0.014518 0.031636
TCP Connect IPv4 → port 443	000 0.014665 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
```