

# IPv6 Readiness Report

audit.gov.my — audit.gov.my

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Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/feac6f0e-4978-42d5-9bf4-e5e52278fd4b>**Non-Compliant**

MGv6C-1.0

**47%****Partial Support****IPV6-ONLY READINESS**Website: **X Not Ready**DNS: **✓ Ready**Email: **X Not Ready****IPV4 ADDRESSES**

202.75.6.8

**Network Information (WHOIS / RDAP)**

IPv4 Network	
Organization	GITN Sdn. Bhd.
Country	MY
ASN	AS17564
ASN Name	GITN-PCN-AS-AP GITN M Sdn. Bhd., MY
Network (CIDR)	202.75.4.0/22

**Web Services** (35%)

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#	CHECK	RESULT	DETAIL
1	<b>AAAA Record</b>	<b>FAIL</b>	No AAAA record found in DNS.
2	<b>Globally Routable IPv6</b>	<b>FAIL</b>	IPv6 address is not globally routable.
3	<b>HTTP over IPv6</b>	<b>FAIL</b>	HTTP is not accessible over IPv6.
4	<b>HTTPS over IPv6</b>	<b>FAIL</b>	HTTPS is not accessible over IPv6.
5	<b>IPv6-Only Reachability</b>	<b>FAIL</b>	Site is not reachable when limited to IPv6-only.
6	<b>TLS Certificate Valid (IPv6)</b>	<b>FAIL</b>	TLS certificate is invalid, expired, or hostname mismatch over IPv6.
7	<b>Dual-Stack (IPv4 + IPv6)</b>	<b>FAIL</b>	Domain is IPv6-only or IPv4-only.
8	<b>HTTP/3 (QUIC)</b>	<b>FAIL</b>	No HTTP/3 support detected.

**DNS & DNSSEC** (25%)

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#	CHECK	RESULT	DETAIL
1	<b>NS Has AAAA Record</b>	<b>PASS</b>	Nameserver has IPv6 address.
2	<b>NS Reachable via IPv6</b>	<b>PASS</b>	Nameserver is reachable via IPv6 on port 53.
3	<b>NS Answers Queries via IPv6</b>	<b>PASS</b>	DNS queries answered over IPv6.
4	<b>DNSSEC Validated</b>	<b>PASS</b>	DNSSEC fully validated.
5	<b>Reverse DNS (PTR)</b>	<b>FAIL</b>	No PTR record found.
6	<b>DS Record at Parent</b>	<b>PASS</b>	DS record found at parent zone.
7	<b>RRSIG Valid</b>	<b>PASS</b>	RRSIG signatures are current and valid.
8	<b>Signing Algorithm</b>	<b>INFO</b>	RSASHA256

**Email Services** (25%) 4 / 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>FAIL</b>	SMTP is not reachable over IPv6.
4	<b>STARTTLS over IPv6</b>	<b>FAIL</b>	STARTTLS not available 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%) 2 / 3

#	CHECK	RESULT	DETAIL
1	<b>A Record</b>	<b>PASS</b>	202.75.6.8
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4.
3	<b>HTTPS over IPv4</b>	<b>FAIL</b>	HTTPS is not accessible over IPv4.

### Audit Trail & Evidence Record

Verification ID	feac6f0e-4978-42d5-9bf4-e5e52278fd4b
Domain	audit.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:02:04 MYT
Finished	07 Mar 2026, 01:02:27 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/feac6f0e-4978-42d5-9bf4-e5e52278fd4b

### Integrity Verification

✓ <b>INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	b07944159ef6636886fb2e6e7d032d1a3d00c76468a0c82b953adf23aac2c116
http_headers	86d4b3f861f582efbf1ed72ca230ce8e403f77df48e93b347ac84e1c5c94661f
dns_responses	b65008490910f9761c2bcde399238da3f64e0ad1ba5e846a30fe9cc2f5c88274
tls_handshake	542c8af094daabc0a2538212cbdf3fdb72eaafe08a0b5e4d5a1064314a873bb
connectivity_log	ff73afe77cfa5285f0a7b08a774eb8520974307f01143c33d36acb946d57e191
dns_resolution_times	8b6c27d0b142c9a74ca314b675e28fe916e9007b2cf22a976e6ed20fc45cb06f

### 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	9.82	17.38	8.76	8.83	-1.1
Google	IPv4	33.26	41.31	27.41	30.28	-5.9
Google	IPv6	29.91	37.96	30.05	37.89	+0.1
Cloudflare	IPv4	19.95	20	19.96	20.09	0
Cloudflare	IPv6	7.93	41.06	9.95	18.16	+2



**DNS Evidence**

**A**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 22650
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 3600 IN A 202.75.6.8
```

**DS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63040
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 21600 IN DS 7405 8 1 7E5DD0D05B26D96ABE9E2426F857A48361D309C0
audit.gov.my. 21600 IN DS 7405 8 2 B298F407658BB33C18E9C2F19F074FD2FA22885C2477598E43B5B24C B67F96CF
```

**MX**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 46282
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 300 IN MX 5 alt1.aspmx.l.google.com.
audit.gov.my. 300 IN MX 5 alt2.aspmx.l.google.com.
audit.gov.my. 300 IN MX 10 alt4.aspmx.l.google.com.
audit.gov.my. 300 IN MX 1 aspmx.l.google.com.
audit.gov.my. 300 IN MX 10 alt3.aspmx.l.google.com.
```

**NS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 58651
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 3600 IN NS dns2.gitn.net.my.
audit.gov.my. 3600 IN NS dns1.gitn.net.my.
```

**TXT**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44009
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 300 IN TXT "8NQWwfESbj8vilkBIhnaJkk6m0FhZjAgqKshDxZr43U="
audit.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"
audit.gov.my. 300 IN TXT "_globalsign-domain-verification=ww641CJ9ZvXSjx0xdaxeMjoNYVMAznXaudPTBC2SUN"
audit.gov.my. 300 IN TXT "google-site-verification=ebMkMNCV-LmoLx0Dt_JFfM8eRAPH00emu4QejGeOUjg"
audit.gov.my. 300 IN TXT "MS=ms35589190"
```

**AAAA**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 65137
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
audit.gov.my. 1800 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030502 3600 900 3600000 3600
```

RRSIG

```
dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030502 3600 900 3600000 3600
SOA 8 3 3600 20260404173015 20260305163015 8454 audit.gov.my. dTFYN0bJ98dk02w0fyUzzS1Z/nVE8dfA0NH0aI9YEvjz0ID5bT/NmK52
Mp0Hhm7FZjDdoeesmMhEa5Vn/e0FwtDp0CMVSIcJg0g5h5XwJ8KfIz2b 61dX41fwu3/FJJKTZwK0ENXzBmP7N2VzNLtLx6ch6vb59chlRnW24XL G34=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44090
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
audit.gov.my. 3578 IN DNSKEY 256 3 8 AwEAAcBhbzRzGyvS1R0gzuH3ZJdWRI4VgkMwUsClnXMYgpPmrVudzEal LxKW/f3oXZJAUG16LL04mpJIViCba6bchEK2yF9b0csDYiZHZ51re03F
VZ+1P358FXtGmv9RKh2p87B6uJtU0BZCSgqCt/1V23AGsg0mat8iFZXr p4JNXEHb
audit.gov.my. 3578 IN DNSKEY 257 3 8 AwEAAbUepkZ30Uey1WSSJywwMeBbUHBpXQU+6+VUqW8cuBv7gMLfK1tV EnpAuIXsdH2uMEnAeptbYABRvsRk9XlKS5H4ui1RL4NhZDHG5BALoEy5
lt104mdxuInL/zhaebTviQqynBtF7NDDKfZTe4I/qcXFbiDpDd4YEMHk V0yFznpZ/7XHjW/mBw9yFtbNkwu3cuH+EVr1yyxoUK8Kdy7hwDnuYa6
cQBOXDmZi39x7E5tRh+G/Z0jHqQNDQ12Qwa92dSkEvQYTVud12PNbarD eEuL4K/VA4M2WtraRPI0HKY+EeZJ4DgScEJe24QJXmaFhj5gI5dgkPCN /YGTZoaPnNk=
```

DNSSEC\_VALIDATION

```
; fully validated
audit.gov.my. 3578 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026030502 3600 900 3600000 3600
audit.gov.my. 3578 IN RRSIG SOA 8 3 3600 20260404173015 20260305163015 8454 audit.gov.my. dTFYN0bJ98dk02w0fyUzzS1Z/nVE8dfA0NH0aI9YEvjz0ID5bT/NmK52
Mp0Hhm7FZjDdoeesmMhEa5Vn/e0FwtDp0CMVSIcJg0g5h5XwJ8KfIz2b 61dX41fwu3/FJJKTZwK0ENXzBmP7N2VzNLtLx6ch6vb59chlRnW24XL G34=
```





```
b20vcMwB3NpdG9yeS8wDQYJKoZIhvcNAQELBQADggEBAJmQyC1fQorUC2bbmANz
EdSIhLIoU4r7rd/9c446ZwTbw1MUcBQJfMPg+NccmBqixD7b6QDjynCy8SIwIVbb
0615XoFYC20UgDX1b10d65pHBf9ZjQCxQNqQmJYaumxtf4z1s4dfjGRzNpZ5eWl0
6r/4ngGPoJVpjemEuunl1Ig423g7mNA2eymw0LIYkN5S0wCuaiFIFJ6GLazhgDEw
fpoLu4usBC0mmQDo8dIm7A9+04orkjgTHY+GzYZSR+Y0fFukAj6KYXwidlNaLFMz
hriSqHkVoflShx8xpfywgVcvzfT03PYkz6fiNJBonf6q8amaEsybwMbdqKwIX7e
SPY=
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = Putrajaya, L = Putrajaya, O = Jabatan Audit Negara, CN = *.audit.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 3345 bytes and written 378 bytes
Verification: OK
---
New, TLSv1.3, Cipher is TLS_AES_128_GCM_SHA256
Server public key is 2048 bit
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
```

## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	302
Connected IP	202.75.6.8
Connect Time	10 ms
TTFB	10.86 ms
Total Time	30.49 ms
Error	Recv failure: Connection reset by peer

#### Response Headers:

```
[
  "HTTP/1.0 302 Moved Temporarily",
  "Location: https://audit.gov.my/",
  "Server: BigIP",
  "Connection: Keep-Alive",
  "Content-Length: 0"
]
```

### IPv4 HTTPS (port 443)

HTTP Status	0
Connected IP	202.75.6.8
Connect Time	14.57 ms
TTFB	0 ms
Total Time	36.14 ms
Error	Recv failure: Connection reset by peer

## Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	302 0.006650 0.016496
TCP Connect IPv4 → port 443	000 0.005388 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
--------------------------------	---

### 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
```