


# IPv6 Readiness Report

kuskop.gov.my — kuskop.gov.my

Category: Government • Generated: 20 Apr 2026, 21:24 MYT • Last Checked: 07 Mar 2026, 01:35 MYT • Verification ID: 31886a3a-513f-4104-9583-481653441367

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/31886a3a-513f-4104-9583-481653441367>



**Partially Compliant**  
MGv6C-1.0

**65%**  
Partial Support

**IPv6-ONLY READINESS**  
Website: ✗ Not Ready  
DNS: ✓ Ready  
Email: ✗ Not Ready

<b>IPv6 ADDRESSES</b> 2401:b00:6:210::80	<b>IPv4 ADDRESSES</b> 103.8.160.95
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## Network Information (WHOIS / RDAP)

	IPv6 Network	IPv4 Network
Organization	GITN Sdn. Bhd.	KeTTHA
Country	MY	MY
ASN	AS17564	AS17564
ASN Name	GITN-PCN-AS-AP GITN M Sdn. Bhd., MY	GITN-PCN-AS-AP GITN M Sdn. Bhd., MY
Network (CIDR)	2401:b00::/32	103.8.160.96/32

Web Services (35%)				3 / 8
#	CHECK	RESULT	DETAIL	
1	AAAA Record	PASS	2401:b00:6:210::80	
2	Globally Routable IPv6	PASS	All addresses are 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)	PASS	Domain has both A and AAAA records.	
8	HTTP/3 (QUIC)	FAIL	No HTTP/3 support detected.	

DNS & DNSSEC (25%)				5 / 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	PASS	DNS queries answered over IPv6.	
4	DNSSEC Validated	PASS	DNSSEC fully validated.	
5	Reverse DNS (PTR)	PASS	PTR record found in ip6.arpa.	
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%) 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>	103.8.160.95
2	<b>HTTP over IPv4</b>	<b>FAIL</b>	HTTP is not accessible over IPv4.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 26ms TTFB.

### Audit Trail & Evidence Record

Verification ID	31886a3a-513f-4104-9583-481653441367
Domain	kuskop.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:30:49 MYT
Finished	07 Mar 2026, 01:35:34 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/31886a3a-513f-4104-9583-481653441367

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	5fe2df6796c86fa76ec89665cdd4ac348ef4831d8915f008c346ecf91170a49f
http_headers	fa9b337333dc023bc73a664a6d0af11ef7acf16bcf2a37b7fce252f3e196e1c6
dns_responses	fc3019df02114663970590a63faa65a9bd2994eb7522a8eb8ad5c5f220587533
tls_handshake	980a76713eca9ba761192b21f60b090c3fd805b94b256fc2dad3610b2abfd8a
connectivity_log	650aa87a91babae9a4e44e55db4532d0d62bd8a31525c72bb62ba26ad221234f
dns_resolution_times	5240fcec0c4f9ad25e634aebd4d4ed8e6c5d4943c01154b9ab6f110db94823a

### 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	7.74	17	7.27	8.12	-0.5
Google	IPv4	30.09	40.8	28	37.97	-2.1
Google	IPv6	25.94	40.18	40.66	42.29	+14.7
Cloudflare	IPv4	18.11	18.83	10.02	20.96	-8.1
Cloudflare	IPv6	43.81	54.61	19.92	54.86	-23.9



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24294
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kuskop.gov.my. 3600 IN A 103.8.160.95
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18186
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kuskop.gov.my. 20067 IN DS 64804 8 1 A30CD572CE1F91BBB5611A84D8BE97592C2EFF3F
kuskop.gov.my. 20067 IN DS 64804 8 2 335A82E4DB1BA4F38BF054D603C3AFE8D546E78BC47FD9CD73D48DB6 4E7873BE
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 2899
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

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

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 1075
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

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

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 53390
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kuskop.gov.my. 300 IN TXT "google-site-verification=rmkJfd-CSRDAL_UAgg338PF9Et0LL2KjnrJGXZxxfzI"
kuskop.gov.my. 300 IN TXT "0009697373756577696C647365637469676F2E636F6D"
kuskop.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"
kuskop.gov.my. 300 IN TXT "MS=ms76898747"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18742
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kuskop.gov.my. 2068 IN AAAA 2401:b00:6:210::80
```

RRSIG

```
dns1.gitn.net.my. planning.gitn.com.my. 2025121043 10800 3600 604800 38400
SOA 8 3 3600 20260405004510 20260305234510 55653 kuskop.gov.my. lkxthME2pP/vnp5Y61wp3jmUIVMezC0HR8M72EewLPgCYxjR8iZp2QLt
H2qJsc4eYUmXN1WF9yem7UQ/w20oFwr3BLfYJWw1V6t5hLwgX7y9rGJL bktXNvovm7iSJB7rWAs06TWkUbVuuUp83uf5X7Dfwr19eecsF0qZ4yw Vp8=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 59919
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kuskop.gov.my. 2068 IN DNSKEY 257 3 8 AwEAAeobyPFq45kcIg7umNiR8T5oTYuESkeESLkoLU5u2IQ90vSpqsmG JAmZCU+/MrH8GdZ4MYz+D1l8PYZejsixtrtnU4sIEakIRGJ1X4lmRXz
/qonXQgjB6D/VNHCnwMVj7U6weA8NN510EoSB9sUTwrEK7d0kGEq4PJZ Y0DZW8Ah++h7a/MGP1ZK4WpGuyXU0CNQx9ZIx4T6xzWUZSZHbiza90W6
+InAcwzyK5Up5a2UQCqBjvXHkCicVp1Lb+XI87khj+rn1vJUsnUXix84 wXuGyjF8EkE3UeIchjEglerdGsqHzbEdu/2r17epW3wjhTBZFvpHPaJC Q50J4zWMfQM=
kuskop.gov.my. 2068 IN DNSKEY 256 3 8 AwEAAZ1MsJnhqf8k4DFsJCNk4wxm+YN7/QwHNV00J2t50c9ZUjBEcmNn zPdQ+9K363yJQqLZYafFL8PSAr5DHqCGff63qagT+btTW9vgRA72WzZR
1tMW/TyMaUG7+ZrQiN+mmw3i5w+bqrSgqsrj04ft+96yDVnzL8ymTNWG CzSPMByb
```

DNSSEC\_VALIDATION

```
; fully validated
kuskop.gov.my. 2036 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2025121043 10800 3600 604800 38400
kuskop.gov.my. 2036 IN RRSIG SOA 8 3 3600 20260405004510 20260305234510 55653 kuskop.gov.my. lkxthME2pP/vnp5Y61wp3jmUIVMezC0HR8M72EewLPgCYxjR8iZp2QLt
H2qJsc4eYUmXN1WF9yem7UQ/w20oFwr3BLfYJWw1V6t5hLwgX7y9rGJL bktXNvovm7iSJB7rWAs06TWkUbVuuUp83uf5X7Dfwr19eecsF0qZ4yw Vp8=
```





```

HwQ7MDkwN6A1oDOGmWh0dHA6Ly9jcmwzLmRpZ2ljZXJ0LmNvbS9EaWdpQ2VydEds
b2JhbFJvb3RHMl5jcmwvPQYDVR0gBDYwNDAYBgRVHSAAMCowKAYIKwYBBQUHAgEw
HGh0dHBzOi8vd3d3LmRpZ2ljZXJ0LmNvbS9DUUFMwDQYJKoZIhvcNAQELBQADggEB
AIICBDQc6cWpyGUSXAJjAcYwsK4iiGF7KweG97i1Rjz1kwZhRoo6orU1JtBYnjzB
c4+/sXmnHJK3mLPyL1xuIAt9sMeC7+vreRIF5wFBC0MCN5sbHwhNN1JzKbifNeP5
ozpZdQFmkCo+neBiKR6HqIA+LMTMCMuv2khGGuPHmtDze4GmEGZtYLyF8EQpa5Y
jPuV6k2Cr/N3XxFpT3hRpt/3usU/Zb9wfKPtWp0znZ4/44clp9rzFcZYrWkj3A+7
TNBJE0GmP2fhXhp1D/XVfIW/h0yCJGEiV9GLm/uG0a3DXHlmbAcxSyCRraG+ZBKA
7h4SeM6Y8L/7MBRpPcz6l8Y=
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = Wilayah Persekutuan Putrajaya, L = Putrajaya, O = KEMENTERIAN PEMBANGUNAN USAHAWAN DAN KOPERASI (KUSKOP), CN = protege.gov.my
issuer=C = US, O = DigiCert Inc, OU = www.digicert.com, CN = GeoTrust TLS RSA CA G1
---
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 3460 bytes and written 395 bytes
Verification: OK
---
New, TLSv1.3, Cipher is TLS_AES_256_GCM_SHA384
Server public key is 2048 bit
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE

```

IPV6 Connection

IP Used	2401:b00:6:210::80
IP Version	6

```

4077D595C6700000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
4077D595C6700000: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	8002.55 ms
Error	Failed to connect to kuskop.gov.my port 80 after 8002 ms: Timeout was reached

IPv6 HTTP (port 80)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	13.95 ms
Error	Failed to connect to kuskop.gov.my port 80 after 13 ms: Couldn't connect to server

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.8.160.95
Connect Time	5.65 ms
TTFB	30.02 ms
Total Time	30.09 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Server: nginx",
  "Date: Fri, 06 Mar 2026 09:36:21 GMT",
  "Content-Type: text/html",
  "Content-Length: 8062",
  "Last-Modified: Tue, 25 Nov 2025 09:03:27 GMT",
  "Connection: keep-alive",
  "ETag: \"692570df-1f7e\"",
  "Content-Security-Policy: frame-ancestors 'self' https://tableau.drsa.jdn.gov.my",
  "Accept-Ranges: bytes",
  "Set-Cookie: cookiesession1=678B2867A4AAA26DB1B2D9EA15AECBF2;Expires=Sat, 06 Mar 2027 09:35:24 GMT;Path=/;HttpOnly"
]
```

IPv6 HTTPS (port 443)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.25 ms
Error	Failed to connect to kuskop.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 IPv6 → port 80	000 0.000000 0.000000
TCP Connect IPv4 → port 443	000 0.004799 0.000000
TCP Connect IPv6 → 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
--------------------------------	---

### 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
```