

IPv6 Readiness Report

ksn.gov.my — ksn.gov.my



Scan to verify

Category: Government • Generated: 13 Jun 2026, 18:40 MYT • Last Checked: 13 Jun 2026, 00:50 MYT • Verification ID: 8fa76807-711b-477f-a909-fd7e5e5fa1d7

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

Audit trail: <https://ipv6.my6.my/audit/8fa76807-711b-477f-a909-fd7e5e5fa1d7>

<p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p>	<p>35%</p> <p>No IPv6 Support</p>	<p>IPv6-ONLY READINESS</p> <p>Website: X Not Ready</p> <p>DNS: ✓ Ready</p> <p>Email: X Not Ready</p>
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<p>IPv4 ADDRESSES</p> <p>150.242.182.131</p>

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)	150.242.180.0/22

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%)				4 / 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)	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%) 0 / 6

#	CHECK	RESULT	DETAIL
1	MX Record Exists	FAIL	No MX record found in DNS.
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	FAIL	No SPF record found.
6	DKIM Selector	INFO	No common DKIM selector found.
7	DMARC Record	FAIL	No DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	150.242.182.131
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 287ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 246ms TTFB.

Audit Trail & Evidence Record

Verification ID	8fa76807-711b-477f-a909-fd7e5e5fa1d7
Domain	ksn.gov.my
Check Mode	Scheduled
Status	Completed
Started	13 Jun 2026, 00:50:02 MYT
Finished	13 Jun 2026, 00:50:12 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/8fa76807-711b-477f-a909-fd7e5e5fa1d7

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	7d644f4fc5cdf671e839dede65d1f8b27c394174c46b00df710ac1565928c703
http_headers	34366bfc539ae3e5ebaa64797d9397909cdfffd5bf263db199387d19e4487e3f
dns_responses	680828af6b1d0e5dce41c94fc47f32402e67085b1cf87b4bc5f166c5ce2448c1
tls_handshake	9cd40c1f7f27efbbd73c984f748529ce3e7e02897120df34ceb8295528d9f6f8
connectivity_log	4256384e588487b5e188f69d54aff25727eb28150e597e7b4df5bfd83868cf36
dns_resolution_times	4cd07ad8689e1db45c90b121c787d078293186ac2ed7fedf82512b29fb094818

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	-

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	20.04	21.17	10.14	20.95	-9.9
Google	IPv4	50.21	66.55	41.98	60.53	-8.2
Google	IPv6	48.32	52.72	42.71	43.49	-5.6
Cloudflare	IPv4	12.01	27.88	9.92	20.55	-2.1
Cloudflare	IPv6	22.2	31.71	24.52	41.72	+2.3

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 7303
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
ksn.gov.my. 38400 IN A 150.242.182.131
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44466
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
ksn.gov.my. 386397 IN DS 1069 8 2 03DE662BA2E314728939A4FD7A31CA472F71B8ED341C9BA4089B1471 5D233C5D
ksn.gov.my. 386397 IN DS 1069 8 1 1753351F85E0C059460FA3F9FE77FD3139C102CE
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50594
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
ksn.gov.my. 3600 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2025110579 10800 3600 604800 38400
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14892
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
ksn.gov.my. 38400 IN NS dns1.gitn.net.my.
ksn.gov.my. 38400 IN NS dns2.gitn.net.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 13659
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
ksn.gov.my. 3600 IN TXT "_globalsign-domain-verification=u1-Vk7MRzaAEZFYs0Si2fnoVcUe-bh1WVTAs2S40e-"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 43477
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
ksn.gov.my. 3600 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2025110579 10800 3600 604800 38400
```

RRSIG

```
dns1.gitn.net.my. root.dns1.gitn.net.my. 2025110579 10800 3600 604800 38400
SOA 8 3 38400 20260709175329 20260609165329 42309 ksn.gov.my. o1S2pTnY0UuyZBGUUFv2+iqH2rEsDVB/02jvW4j7KuyFgHxyZZE3tAsd
w+9ac8EeHfZj3PgQ7UhoPTPZP+ywJKTVBVSdKYhBSwca/QJlFb1+Mwa2 GAjw2GLSffn+cJNfk2sfVfZA4J5iR/bQbde3w0Rfc90oS1+NFGbQbP0 fZs=
```

DNSKEY

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 34235
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
ksn.gov.my. 38397 IN DNSKEY 256 3 8 AwEAAbhvFDfULBAbd002n0EoMIVuW0Sces9iyj7MoxL0hKJrSN9jxK7 YN537G5RCG1q+Ggn19tTrvJ+rXaynJmgRXy7GpXxuY6is2aGpFvX2tKX
U2377j5srQdK/pjxoYTzC8DpgCVJeaA85LhgH+lt+LSGFgIJY9/ZDmtS Bh8t0y8v
ksn.gov.my. 38397 IN DNSKEY 257 3 8 AwEAAaqTrx1PpLI5om0+Rm6RcMV8J3GoH0qXRR0eb00TBCCOM+Zln0Da ZtSov+S3dcBUfpoFcsIiiBT0aY34LryWerJ2wdXCLK1qomvv5gLLvkWR
l3omVA01SAhgVj09DnACugdiEfa2U6/8+yUi40cTh2jkoQqz1v1oTbGb 51X8P×9AR1T1UtI/VZv9b2yuP1LZQE6uq4hqLNx9CmJ0QuHCDwrkRwKm
fCeLY02et3J14BTIOh40fj4DeQvIr+Cn7VnTzT0u9wavLcKG66x02X+ 3dyNVhmSBh/Nbin1D24wVFmnnQCtWfiWEMJHm3jqeYAMu9tiUFRofL +SbUXjE2hhE=
```

DNSSEC_VALIDATION

```
; fully validated
ksn.gov.my. 38397 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2025110579 10800 3600 604800 38400
ksn.gov.my. 38397 IN RRSIG SOA 8 3 38400 20260709175329 20260609165329 42309 ksn.gov.my. o1S2pTnY0UuyZBGUUFv2+iqH2rEsDVB/02jvw4j7KuyFgHxyZZE3tAsd
w+9ac8EeHfZj3PgQ7UhoPTPZP+ywJKTVBVSdKYhBSwca/QJlfB1+Mwa2 GAjwT2GLSffn+cJNfk2sfVfZA4J5iR/bQbde3w0Rfc90o51+NFGbQbP0 fZs=
```



```
Protocol : TLSv1.2
Cipher   : ECDHE-RSA-AES256-GCM-SHA384
Session-ID: E6215EFF77EB8DA00FF4E0B7E9E618BD63537A6357F8A6DC57D03E629D18CEAB
Session-ID-ctx:
Master-Key: 87EB1CA983576E9BBAF013F2E867B8B8C247B34156BF124EA8C637EF76D1FC1264566E9FFF331D3E7BC64DFE864E9C65
PSK identity: None
PSK identity hint: None
SRP username: None
TLS session ticket lifetime hint: 7200 (seconds)
TLS session ticket:
0000 - d5 8d 98 c0 5e 87 2d 60-68 09 9e 9d 76 c4 f1 48  ....^.-`h...v..H
0010 - 7d 5e 29 de 0c 3f 9d 39-78 c2 a1 95 d5 0b 72 ee  }^)..?.9x.....r.
0020 - ab d5 30 33 56 22 8a d6-8e c6 9f 01 2e d1 9e 4f  ..03V".....0
0030 - 53 53 af fd e1 d8 ce a8-36 a7 39 77 d1 fd eb bd  SS.....6.9w....
0040 - d7 4e c6 a3 c1 4d b7 13-0f 0e 02 eb af 2e da b0  .N...M.....
0050 - d1 01 65 72 3d b0 41 49-af a9 fb ff 56 c7 f7 0f  ..er=.AI....V...
0060 - 83 06 fd 17 13 0d e6 0f-5d e8 1c 4a 56 42 23 83  .....]..JVB#.
0070 - ac bf 1a 68 9d 78 9c 2d-14 3d f0 c7 8a 46 32 8d  ..h.x.-.=...F2.
0080 - 34 ad cc 01 00 8c 1c e8-99 18 f4 e1 dc 63 93 87  4.....c...
0090 - 47 84 5c 76 55 da bc 37-d9 bc a4 85 87 a9 39 d0  G.\vU..7.....9.
00a0 - c8 c9 e6 43 ec 25 a4 a7-ab 38 19 c3 1c 2d 90 e5  ...C.%...8....
00b0 - d7 7d 17 e8 b3 55 10 95-6d 30 43 c7 9c 00 6f 73  .}...U..m0C....os

Start Time: 1781283011
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	200
Connected IP	150.242.182.131
Connect Time	5.46 ms
TTFB	248.28 ms
Total Time	248.33 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 12 Jun 2026 16:50:25 GMT",
  "Server: Apache/2.4.52 (Ubuntu)",
  "Set-Cookie: 221140486b431e384120e06e2fac7430=a6dk2d9bnl4p0rkit4ie8l7esd; path=/; HttpOnly",
  "x-frame-options: SAMEORIGIN",
  "referrer-policy: strict-origin-when-cross-origin",
  "cross-origin-opener-policy: same-origin",
  "Expires: Wed, 17 Aug 2005 00:00:00 GMT",
  "Last-Modified: Fri, 12 Jun 2026 16:50:25 GMT",
  "Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0",
  "Pragma: no-cache",
  "Content-Type: text/html; charset=utf-8",
  "Set-Cookie: cookiesession1=678B2890F83131D11E37079F489D7196;Expires=Sat, 12 Jun 2027 16:50:11 GMT;Path=/;HttpOnly"
]
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	150.242.182.131
Connect Time	8.05 ms
TTFB	285.47 ms
Total Time	285.5 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 12 Jun 2026 16:50:25 GMT",
  "Server: Apache/2.4.52 (Ubuntu)",
  "Set-Cookie: 221140486b431e384120e06e2fac7430=3rhtr29s8m7qmfs80ck8r8sfc; path=/; HttpOnly",
  "x-frame-options: SAMEORIGIN",
  "referrer-policy: strict-origin-when-cross-origin",
  "cross-origin-opener-policy: same-origin",
  "Expires: Wed, 17 Aug 2005 00:00:00 GMT",
  "Last-Modified: Fri, 12 Jun 2026 16:50:25 GMT",
  "Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0",
  "Pragma: no-cache",
  "Content-Type: text/html; charset=utf-8",
  "Set-Cookie: cookiesession1=678B2890369CCF4DB294102F63F6D6AB;Expires=Sat, 12 Jun 2027 16:50:12 GMT;Path=/;HttpOnly"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	403 0.005504 0.098081
TCP Connect IPv4 → port 443	000 0.006095 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
```