


# IPv6 Readiness Report

icu.gov.my — icu.gov.my

Category: Government • Generated: 21 Apr 2026, 19:06 MYT • Last Checked: 07 Mar 2026, 01:04 MYT • Verification ID: e1962193-5b41-4464-a039-067d729c6803  
Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>  
Audit trail: <https://ipv6.my6.my/audit/e1962193-5b41-4464-a039-067d729c6803>

 <b>Non-Compliant</b> <small>MGv6C-1.0</small>	<b>52%</b> <b>Partial Support</b>	<b>IPV6-ONLY READINESS</b> Website: <span style="color: red;">✗ Not Ready</span> DNS: <span style="color: green;">✓ Ready</span> Email: <span style="color: red;">✗ Not Ready</span>
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<b>IPV4 ADDRESSES</b> 103.8.147.162
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## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	PCN
Country	MY
ASN	AS17564
ASN Name	GITN-PCN-AS-AP GITN M Sdn. Bhd., MY
Network (CIDR)	103.8.147.32/27

Web Services (35%) <span style="float: right;">0 / 8</span>			
#	CHECK	RESULT	DETAIL
1	<b>AAAA Record</b>	<span style="color: red;">FAIL</span>	No AAAA record found in DNS.
2	<b>Globally Routable IPv6</b>	<span style="color: red;">FAIL</span>	IPv6 address is not globally routable.
3	<b>HTTP over IPv6</b>	<span style="color: red;">FAIL</span>	HTTP is not accessible over IPv6.
4	<b>HTTPS over IPv6</b>	<span style="color: red;">FAIL</span>	HTTPS is not accessible over IPv6.
5	<b>IPv6-Only Reachability</b>	<span style="color: red;">FAIL</span>	Site is not reachable when limited to IPv6-only.
6	<b>TLS Certificate Valid (IPv6)</b>	<span style="color: red;">FAIL</span>	TLS certificate is invalid, expired, or hostname mismatch over IPv6.
7	<b>Dual-Stack (IPv4 + IPv6)</b>	<span style="color: red;">FAIL</span>	Domain is IPv6-only or IPv4-only.
8	<b>HTTP/3 (QUIC)</b>	<span style="color: red;">FAIL</span>	No HTTP/3 support detected.

DNS & DNSSEC (25%) <span style="float: right;">4 / 5</span>			
#	CHECK	RESULT	DETAIL
1	<b>NS Has AAAA Record</b>	<span style="color: green;">PASS</span>	Nameserver has IPv6 address.
2	<b>NS Reachable via IPv6</b>	<span style="color: green;">PASS</span>	Nameserver is reachable via IPv6 on port 53.
3	<b>NS Answers Queries via IPv6</b>	<span style="color: green;">PASS</span>	DNS queries answered over IPv6.
4	<b>DNSSEC Validated</b>	<span style="color: green;">PASS</span>	DNSSEC fully validated.
5	<b>Reverse DNS (PTR)</b>	<span style="color: red;">FAIL</span>	No PTR record found.
6	<b>DS Record at Parent</b>	<span style="color: green;">PASS</span>	DS record found at parent zone.
7	<b>RRSIG Valid</b>	<span style="color: green;">PASS</span>	RRSIG signatures are current and valid.
8	<b>Signing Algorithm</b>	<span style="color: purple;">INFO</span>	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%) 3 / 3

#	CHECK	RESULT	DETAIL
1	<b>A Record</b>	<b>PASS</b>	103.8.147.162
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 48ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 24ms TTFB.

**Audit Trail & Evidence Record**

Verification ID	e1962193-5b41-4464-a039-067d729c6803
Domain	icu.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:04:11 MYT
Finished	07 Mar 2026, 01:04:37 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/e1962193-5b41-4464-a039-067d729c6803

**Integrity Verification**

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	b59ec6a5830d48581a65db98dd435edceb05677a403fb85707f679403d04691e
http_headers	e9374329f147ad69f8aedca75a0faad5c9e1a93a81c0e1b71f493d8c5657607
dns_responses	0af64cf36bf114dbfc5371c6f3f447744d065312d2de88a6c98bad1c222539bd
tls_handshake	3f2f092ca911c2af691e457eb79419c76cf89d1e6c5137b2bcd88a9a42fe0202
connectivity_log	2bfc6bf865bb471b4de95fb40f196afeab1aaba492d78b937e017906ab114fdf
dns_resolution_times	066e4bce52f7f569196312331989638b86eb07d017f5ab735d9487602700c639

**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	13.84	24.03	8.89	24.34	-5
Google	IPv4	32.53	39.03	17.1	31.11	-15.4
Google	IPv6	32.67	33.18	26.99	40.98	-5.7
Cloudflare	IPv4	16.69	16.97	13.79	18.29	-2.9
Cloudflare	IPv6	52.54	65.64	20.08	40.03	-32.5



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 35307
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
icu.gov.my. 3600 IN A 103.8.147.162
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 33494
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
icu.gov.my. 3600 IN DS 7054 8 1 3F231BB9AD6E1F2539400C08D529D36BA136C183
icu.gov.my. 3600 IN DS 7054 8 2 7C23F6848B485EEBFDE51A5EB3BDD3AC3486C48FDF06541CDD079920 65AC2478
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 22963
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
icu.gov.my. 3600 IN MX 10 ALT4.ASPMX.L.GOOGLE.COM.
icu.gov.my. 3600 IN MX 1 ASPMX.L.GOOGLE.COM.
icu.gov.my. 3600 IN MX 5 ALT1.ASPMX.L.GOOGLE.COM.
icu.gov.my. 3600 IN MX 10 ALT3.ASPMX.L.GOOGLE.COM.
icu.gov.my. 3600 IN MX 5 ALT2.ASPMX.L.GOOGLE.COM.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 35116
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

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

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 46245
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
icu.gov.my. 3600 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"
icu.gov.my. 3600 IN TXT "MS=0D372DBDDAF6936700B2D50DA7C703E7D21CEE77"
icu.gov.my. 3600 IN TXT "MS=ms88448846"
icu.gov.my. 3600 IN TXT "google-site-verification=CC4zh7r55cN85F6k6R68hDPuS2yL1HV6JQ2xlCypHw"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 41585
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
icu.gov.my. 1800 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026030340 10800 3600 604800 38400
```

RRSIG

```
dns1.gitn.net.my. planning.gitn.com.my. 2026030340 10800 3600 604800 38400
SOA 8 3 3600 20260405061425 20260306051425 6325 icu.gov.my. bdRZpqUVb9bQenCj25neCw5AV+PtWB5S2Jyc63HiL0tj90Pv3c2c6A3a
+N0XlrTYSrzjKwDHugfkRjvwJxxmncJ3onWvz8L4YuK07tqM19xQ2DLo vXye9MrQ1W0D68axpf2LecVNBFCFSBXXK6kC4Pf9wUuDsP7JVxFdc0Qwc M1o=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24946
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
icu.gov.my. 3600 IN DNSKEY 257 3 8 AwEAAbwBw486TrJFrgL+F1Z8tF2FpKMciEqi4/4sI6t9IrJ/bGEguCxm LfAipvhvJ0Si/Q2xvNHinVpY6m2P3Rj584fbuFCnJ0708BCT/QRNeCtr
CRUnmshfXUhpaoEbVEYA/Wpa4GjzUSkk77BcBowmYw9D5ifbaR45pgX6 kopax2W510ghZHY2y7BR+D112255xEK19DouHHx6gUe4Jiag/3S/vMc5
l6bJBP24pd5Iy9+2TskG546YCaonAe7SByXiIVCuPYaJXiIN8MVhI0j X9Q71nZ/KsuhR9t4/K8uihssgPi0X19IWW69G4PL93a0RFfJpnueF08Q VxZVF2Ym5Ek=
icu.gov.my. 3600 IN DNSKEY 256 3 8 AwEAAAdkEGiMSUwG1zakPke302AB0mDsnu9p1N95zS7oacYgtqNIjtjuS6 XCw+IxtNhTXHV80uCZ6LIE9M8dTkP3mgrKDjN4Un0eqIRxI00V6SjQp
IRv00Dn000yev77u1Ux2NFQwnR0gAVvI7o0kH0ugzTnU1IzA2bLhj1Js 9N0yBz3d
```

DNSSEC\_VALIDATION

```
; fully validated
icu.gov.my. 3600 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026030340 10800 3600 604800 38400
icu.gov.my. 3600 IN RRSIG SOA 8 3 3600 20260405061425 20260306051425 6325 icu.gov.my. bdRZpqUVb9bQenCj25neCw5AV+PtWB5S2Jyc63HiL0tj90Pv3c2c6A3a
+N0XlrTYSrzjKwDHugfkRjvwJxxmncJ3onWvz8L4YuK07tqM19xQ2DLo vXye9MrQ1W0D68axpf2LecVNBFCFSBXXK6kC4Pf9wUuDsP7JVxFdc0Qwc M1o=
```







## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	404
Connected IP	103.8.147.162
Connect Time	11.85 ms
TTFB	38.81 ms
Total Time	38.86 ms

Response Headers:

```
{
  "0": "HTTP/1.0 302 Moved Temporarily",
  "1": "Location: https://icu.gov.my/",
  "2": "Server: BigIP",
  "3": "Connection: Keep-Alive",
  "4": "Content-Length: 0",
  "6": "HTTP/2 404",
  "7": "content-length: 315",
  "8": "content-type: text/html; charset=us-ascii",
  "9": "date: Fri, 06 Mar 2026 09:04:37 GMT"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	404
Connected IP	103.8.147.162
Connect Time	7.5 ms
TTFB	28.91 ms
Total Time	28.93 ms

Response Headers:

```
[
  "HTTP/2 404",
  "content-length: 315",
  "content-type: text/html; charset=us-ascii",
  "date: Fri, 06 Mar 2026 09:04:37 GMT"
]
```

## Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	302 0.004717 0.010024
TCP Connect IPv4 → port 443	404 0.010715 0.038765

**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
```