



# IPv6 Readiness Report

johor.gov.my — johor.gov.my

Category: Government • Generated: 21 Apr 2026, 19:13 MYT • Last Checked: 07 Mar 2026, 01:27 MYT • Verification ID: 1553086a-cbbf-4fef-af7f-b07a1028e519

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

Audit trail: <https://ipv6.my6.my/audit/1553086a-cbbf-4fef-af7f-b07a1028e519>

 <b>Non-Compliant</b> <small>MGv6C-1.0</small>	 <b>55%</b> <b>Partial Support</b>	<b>IPv6-ONLY READINESS</b> Website: <b>X Not Ready</b> DNS: <b>X Not Ready</b> Email: <b>X Not Ready</b>
---	---	---

<b>IPv6 ADDRESSES</b> 2001:df2:eb00:d000::9	<b>IPv4 ADDRESSES</b> 103.102.240.146
--	--

## Network Information (WHOIS / RDAP)

	IPv6 Network	IPv4 Network
Organization	Office of the State Secretary of Johor	Office of the State Secretary of Johor
Country	MY	MY
ASN	AS9930	AS9930
ASN Name	TTNET-MY TIME dotCom Berhad No. 14, Jalan Majistret U126 Hicom Glenmarie Industrial Park 40150 Shah Alam Selangor, Malaysia, MY	TTNET-MY TIME dotCom Berhad No. 14, Jalan Majistret U126 Hicom Glenmarie Industrial Park 40150 Shah Alam Selangor, Malaysia, MY
Network (CIDR)	2001:df2:eb00::/48	103.102.240.0/22

Web Services (35%) <span style="float: right;">3 / 8</span>			
#	CHECK	RESULT	DETAIL
1	<b>AAAA Record</b>	<b>PASS</b>	2001:df2:eb00:d000::9
2	<b>Globally Routable IPv6</b>	<b>PASS</b>	All addresses are 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>PASS</b>	Domain has both A and AAAA records.
8	<b>HTTP/3 (QUIC)</b>	<b>FAIL</b>	No HTTP/3 support detected.

DNS & DNSSEC (25%) <span style="float: right;">2 / 5</span>			
#	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>FAIL</b>	No nameserver is reachable over IPv6.
3	<b>NS Answers Queries via IPv6</b>	<b>FAIL</b>	Nameserver does not answer queries 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.

#	CHECK	RESULT	DETAIL
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>	DKIM selector found: google._domainkey
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>	103.102.240.146
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 2258ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 2247ms TTFB.

### Audit Trail & Evidence Record

Verification ID	1553086a-cbbf-4fef-af7f-b07a1028e519
Domain	johor.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:22:37 MYT
Finished	07 Mar 2026, 01:27:08 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/1553086a-cbbf-4fef-af7f-b07a1028e519

### Integrity Verification

✓ <b>INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	eb9545960a85226126ccb882849a2f3524f085255381a0e5e1e14c735048397e
http_headers	dfd3d11a7d365d49d34e9437bce99310b15f3b116c139cd81ed26fbf759eff99
dns_responses	35fb57a2ee0d83e7e8ca77eb95a4589acedfd5192fa72267679213d60f7ef00b
tls_handshake	716559148df23e7e2763bfa52e02891f417543ca8b6c030b16f9cd99f2c2362c
connectivity_log	110e72c0d2e74d6c831dfc103ff51b9252e08250fbac05f7018531a874022ea1
dns_resolution_times	a7453d32146a1ae1179a59ef04560d1cf1f76b9e8ba450ea7ae4dff7bf97f18d

### 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	29.26	33	8.69	21.06	-20.6
Google	IPv4	27.46	44.29	41.65	42.38	+14.2
Google	IPv6	23.94	26.39	45.47	55.31	+21.5
Cloudflare	IPv4	21.73	22.85	18.02	22.95	-3.7
Cloudflare	IPv6	15.35	29.61	40.1	40.3	+24.8



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 41590
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 002010IN0A0103.102.240.146
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 21126
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 00216000IN0DS055219 8 1 1D3E3FC7A4BEC5990B98354C96A41535C01B55C0
johor.gov.my. 00216000IN0DS055219 8 2 BC651212310004F21A87EAB0DE4A6332945BC9FD36A3BCDE2D274658 73041048
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 36305
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 003000IN0MX020 mail.johor.gov.my.
johor.gov.my. 003000IN0MX010 zuhal.johor.gov.my.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24262
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 003000IN0NS0matahari.johor.gov.my.
johor.gov.my. 003000IN0NS0lipperta.johor.gov.my.
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 62854
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 003000IN0TXT0"google-site-verification=PLHUB3LwudReKDarcaTicM3r_Id-0_UtiqNEvGRcrnY"
johor.gov.my. 003000IN0TXT0"google-site-verification=wG0cKjsDot3Eh709SbSjah9K-nLGLfod3NTvrK0qUoE"
johor.gov.my. 003000IN0TXT0"google-gws-recovery-domain-verification=54299978"
johor.gov.my. 003000IN0TXT0"v=spf1 mx a:johor.gov.my mx:mail.johor.gov.my ip4:210.19.13.222/27 ip4:103.102.240.119/28 include:_spf.mta.icewarp.co ~all"
johor.gov.my. 003000IN0TXT0"crfqktp0mmv07ktg80llqvqd8r"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 45884
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 003000IN0AAAA02001:df2:eb00:d000::9
```

### RRSIG

```
lipperta.johor.gov.my. admin.johor.gov.my. 1445289886 10800 3600 604800 38400
```

```
SOA 8 3 300 20260405020353 20260306020353 13290 johor.gov.my. Z7JV5+0MDCcmljSaWdKkT8Zicr9wLCQcFQ5pmU/t/G8tf6JiamyCpnhL
5Xruw3KYuiqaFVsg7SGYIaRRaFqkDK6BqqRMC1/90A7kHprWw+2M0if fn/JQ+Wr90+rYrWmToir94INs0wQ2dI7Q5SVTADhGufwkv86xepI+Ar8 ECbIBMMdys7ooLOR7hmqIKMx4y6Lu33DtFDZ0vU/r9rQQQ==
```

DNSKEY

```
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 47331
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
johor.gov.my. 300 IN DNSKEY 257 3 8 AwEAAmAdAub3cL8qVh5jAX9sZ0R467A/cT9ZzndVMLn5QmVqoK44EK9 swjQE52gSvmzKwqUx/l41ZFqTKah2ph013QgKVVZCGA62Ud5Ym+fXSLT
FKCXeGGz/FKuL+sZILBf5srHqPt/I9xEVYmkhFePfrvWk4Q2f0NzQM6 88rASzJRWueVuvCa0PoCbPA7Lt1GXI0+wWnviQz+Kb7LNxLdINU=
johor.gov.my. 300 IN DNSKEY 256 3 8 AwEAAAtQdXiFTZT8Iz4AUIZxcMURZ+jwRX9Er28wlfLk+HWF16jD0QUF 77qJtRzq/ODNcvyXICzQVoiD8v4iL2nbkbUG0rVTF1Yca9dwPJfK7hLo
/N/+ZLLJNru5DpLM1eSa0bpLSS6sphJOKW5zEqQieRvpWnuM0tgVgbDq g/XghrrEQqtEUtHq/VtAf3+PKLuZ0qKExSIG34pfs3FeH5lPvac=
```

DNSSEC\_VALIDATION

```
; fully validated
johor.gov.my. 300 IN SOA lipperta.johor.gov.my. admin.johor.gov.my. 1445289886 10800 3600 604800 38400
johor.gov.my. 300 IN RRSIG SOA 8 3 300 20260405020353 20260306020353 13290 johor.gov.my. Z7JV5+0MDCcmljSaWdKkT8Zicr9wLCQcFQ5pmU/t/G8tf6JiamyCpnhL
5Xruw3KYuiqaFVsg7SGYIaRRaFqkDK6BqqRMC1/90A7kHprWw+2M0if fn/JQ+Wr90+rYrWmToir94INs0wQ2dI7Q5SVTADhGufwkv86xepI+Ar8 ECbIBMMdys7ooLOR7hmqIKMx4y6Lu33DtFDZ0vU/r9rQQQ==
```





```

9r0FQW4gwZTaD94wNAYIKwYBBQUHAQEEDAmMCQGCCsGAQUFBzABhhodHRwOi8v
b2NzcC5nb2RhZGR5LmNvbS8wNQYDV00fBC4wLDAQoCigJoYkaHR0cDovL2NyYyC5n
b2RhZGR5LmNvbS9nZHV3b30tZzIuY3JsMEYGA1UdIAQ/MD0w0wYEVROgADAzMDEG
CCsGAQUFBwIBFiVodHRwczovL2NlcRzLmdvZGFkZHUy29tL3JlCG9zaXRvcnkx
MA0GC5qSIB3DQEBcWUAA4IBAQAIfmyTEMg4uJapKEv/oV9PB09sPpyIBs1Qj6Zz
91cxG7685C/b+LrTW+C05+Z5Yg4MotdqY3MxtfWo5KQ7CC2iXZDXtHwLxFWMM52
Rj17LJ3LXubvDGGqv+QqG+6EnriDfcFDzkSnE3ANKR/0yB0tg2DZ2HKocY0etawi
DsoXiWJYRBuriSUBAA/NxBti21G00w9RKpv0vHP8ds42pM3Z2Czqrpv1KrkQ0U11
GIo/ikGQI31bS/6kA11bRrLDYGCd+H1Q0c7CoZDDu+8CL9IVV05EFdkKrqeKM+2x
LXY2JtwE65/3YR8V3Idv7kaWKK2hJn0KCacubK0NvPi8BDAB
-----END CERTIFICATE-----
---
Server certificate
subject=CN = *.johor.gov.my
issuer=C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", OU = http://certs.godaddy.com/repository/, CN = Go Daddy Secure Certificate Authority - G2
---
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 3486 bytes and written 394 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

```

**IPv6 Connection**

<b>IP Used</b>	2001:df2:eb00:d000::9
<b>IP Version</b>	6

```

40B77499BF740000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
40B77499BF740000: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	200
Connected IP	103.102.240.146
Connect Time	15.82 ms
TTFB	2695.67 ms
Total Time	2695.82 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 06 Mar 2026 09:26:49 GMT",
  "3": "Content-Type: text/html; charset=UTF-8",
  "4": "Content-Length: 0",
  "5": "Connection: keep-alive",
  "6": "Vary: accept,content-type,User-Agent,Accept-Encoding",
  "7": "X-Redirect-By: WordPress",
  "8": "Set-Cookie: __wpdm_client=8d9b363ffb14c80cb623066e07b08317; path=/; domain=www.johor.gov.my; HttpOnly",
  "9": "Location: https://www.johor.gov.my/",
  "10": "Cache-Control: max-age=0",
  "11": "Expires: Fri, 06 Mar 2026 09:26:47 GMT",
  "13": "HTTP/1.1 200 OK",
  "14": "Server: nginx",
  "15": "Date: Fri, 06 Mar 2026 09:26:49 GMT",
  "16": "Content-Type: text/html; charset=UTF-8",
  "17": "Connection: keep-alive",
  "18": "Last-Modified: Fri, 06 Mar 2026 03:59:52 GMT",
  "19": "Cache-Control: max-age=0",
  "20": "Expires: Fri, 06 Mar 2026 09:26:49 GMT",
  "21": "Vary: Accept-Encoding,User-Agent"
}
```

### IPv6 HTTP (port 80)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.11 ms
Error	Failed to connect to johor.gov.my port 80 after 8002 ms: Timeout was reached

### IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.102.240.146
Connect Time	19.92 ms
TTFB	2271.1 ms
Total Time	2271.2 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 06 Mar 2026 09:26:54 GMT",
  "3": "Content-Type: text/html; charset=UTF-8",
  "4": "Content-Length: 0",
  "5": "Connection: keep-alive",
  "6": "Vary: accept,content-type,User-Agent,Accept-Encoding",
  "7": "X-Redirect-By: WordPress",
  "8": "Set-Cookie: __wpdm_client=9d35f9c0f354dd5aade8e8f11506ca73; path=/; domain=www.johor.gov.my; secure; HttpOnly",
  "9": "Location: https://www.johor.gov.my/",
  "10": "Cache-Control: max-age=0",
  "11": "Expires: Fri, 06 Mar 2026 09:26:52 GMT",
  "13": "HTTP/1.1 200 OK",
}
```

```

"14": "Server: nginx",
"15": "Date: Fri, 06 Mar 2026 09:26:54 GMT",
"16": "Content-Type: text/html; charset=UTF-8",
"17": "Connection: keep-alive",
"18": "Last-Modified: Fri, 06 Mar 2026 03:59:52 GMT",
"19": "Cache-Control: max-age=0",
"20": "Expires: Fri, 06 Mar 2026 09:26:54 GMT",
"21": "Vary: Accept-Encoding,User-Agent"
}
    
```

**IPv6 HTTPS (port 443)**

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.06 ms
Error	Failed to connect to johor.gov.my port 443 after 8001 ms: Timeout was reached

**Connectivity Test Evidence**

Test	Result
TCP Connect IPv4 → port 80	301 0.006794 2.164337
TCP Connect IPv6 → port 80	000 0.000000 0.000000
TCP Connect IPv4 → port 443	301 0.007950 2.303976
TCP Connect IPv6 → port 443	000 0.000000 0.000000

**Test Node Network Evidence**

Node Profile	dual stack
--------------	------------

**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
    
```