

IPv6 Readiness Report

hea.uum.edu.my — hea.uum.edu.my

Category: Education • Generated: 21 Apr 2026, 18:02 MYT • Last Checked: 07 Mar 2026, 01:29 MYT • Verification ID: 50928a82-f4cd-413e-9991-97e22865a7e0

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/50928a82-f4cd-413e-9991-97e22865a7e0>**Non-Compliant**

MGv6C-1.0

10%**No IPv6 Support****IPv6-ONLY READINESS**Website: **X Not Ready**DNS: **X Not Ready**Email: **X Not Ready****IPv4 ADDRESSES**

103.5.180.127

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	Universiti Utara Malaysia
Country	MY
ASN	AS132035
ASN Name	UUM-MY-AS-AP Computer Center, MY
Network (CIDR)	103.5.180.0/22

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%)

0 / 5

#	CHECK	RESULT	DETAIL
1	NS Has AAAA Record	FAIL	No nameserver has an AAAA record.
2	NS Reachable via IPv6	FAIL	No nameserver is reachable over IPv6.
3	NS Answers Queries via IPv6	FAIL	Nameserver does not answer queries over IPv6.
4	DNSSEC Validated	FAIL	DNSSEC validation failed or zone is unsigned.
5	Reverse DNS (PTR)	FAIL	No PTR record found.
6	DS Record at Parent	FAIL	No DS record at parent.
7	RRSIG Valid	FAIL	No valid RRSIG found.
8	Signing Algorithm	INFO	No DNSKEY record found.

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%) 2 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.5.180.127
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 22ms TTFB.
3	HTTPS over IPv4	FAIL	HTTPS is not accessible over IPv4.

Audit Trail & Evidence Record

Verification ID	50928a82-f4cd-413e-9991-97e22865a7e0
Domain	hea.uum.edu.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:26:10 MYT
Finished	07 Mar 2026, 01:29:01 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/50928a82-f4cd-413e-9991-97e22865a7e0

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	4de9f94ea61d01f0681f343e59183b8c472d3d9f6ec6d14599177799aba3085b
http_headers	d615f74ea869e33b36f2b0a4f594db4681a6e866dd62f53ff3d067e02441b733
dns_responses	f81a28c435f975519e01c3f477acc9a4ecb9829a94e58526b895e75774986859
tls_handshake	53b21aaf4bca628369c2c514cecafebfbeac5ffb8f9855b02e7f8b856d8e9bc2a
connectivity_log	dd028f38ba3dd1d8253496fea2f5403fc5b248d276bc372eacb2415fb8af32ef
dns_resolution_times	64d717b8e85b15d1d1c06e109ba9054054861c4068eca0bf0401a895e014afd

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	7.81	7.9	6.16	6.94	-1.7
Google	IPv4	38.67	43.71	36.99	47.71	-1.7
Google	IPv6	39.94	50.87	47.38	49.84	+7.4
Cloudflare	IPv4	9.88	21.83	8.06	19.96	-1.8
Cloudflare	IPv6	33.2	44.66	7.99	30.05	-25.2

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 56810
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
hea.uum.edu.my. 300 IN A 103.5.180.127
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 1038
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 23029
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44998
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25167
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 4439
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

RRSIG

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 19599
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uum.edu.my. 300 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
```

DNSSEC_VALIDATION

```
;; resolution failed: ncache nxrrset
; negative response, fully validated
; hea.uum.edu.my. 288 IN \-SOA; -$NXRRSET
; uum.edu.my. SOA dns1.uum.edu.my. admin.dnsvault.net. 2026030315 10800 3600 604800 86400
; uum.edu.my. RRSIG SOA ...
; DEK3638LQVKIUFM2G0ERBVG5Q2T7TM0.uum.edu.my. RRSIG NSEC3 ...
; DEK3638LQVKIUFM2G0ERBVG5Q2T7TM0.uum.edu.my. NSEC3 1 0 0 DC8EBCBA33EE44B3 DG9UGP4TN0KG4FJ8ELSJ7AC509J031NM A RRSIG
```

TLS Handshake Evidence

IPv4 Connection

IP Used	103.5.180.127
IP Version	4

```
40D7CA128C750000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
40D7CA128C750000: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	500
Connected IP	103.5.180.127
Connect Time	10.88 ms
TTFB	23.13 ms
Total Time	23.22 ms

Response Headers:

```
[
  "HTTP/1.1 500 Internal Server Error",
  "Content-Length: 40130",
  "Content-Type: text/html"
]
```

IPv4 HTTPS (port 443)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.49 ms
Error	Failed to connect to hea.uum.edu.my port 443 after 8002 ms: Timeout was reached

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	200 0.011076 0.344391
TCP Connect IPv4 → 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
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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
```