

IPv6 Readiness Report

hea.uum.edu.my — hea.uum.edu.my



Scan to verify

Category: Education • Generated: 13 Jun 2026, 19:16 MYT • Last Checked: 13 Jun 2026, 01:01 MYT • Verification ID: 9d8e4155-1652-4485-8452-47a9fb55a7b7

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

Audit trail: <https://ipv6.my6.my/audit/9d8e4155-1652-4485-8452-47a9fb55a7b7>

<p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p>	<p>15%</p> <p>No IPv6 Support</p>	<p>IPv6-ONLY READINESS</p> <p>Website: X Not Ready</p> <p>DNS: X Not Ready</p> <p>Email: X Not Ready</p>
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<p>IPv4 ADDRESSES</p> <p>103.5.180.127</p>

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.	

#	CHECK	RESULT	DETAIL
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%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.5.180.127
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 37ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 89ms TTFB.

Audit Trail & Evidence Record

Verification ID	9d8e4155-1652-4485-8452-47a9fb55a7b7
Domain	hea.uum.edu.my
Check Mode	Scheduled
Status	Completed
Started	13 Jun 2026, 01:01:16 MYT
Finished	13 Jun 2026, 01:01:23 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/9d8e4155-1652-4485-8452-47a9fb55a7b7

Integrity Verification

<p>✓ INTEGRITY VERIFIED</p>	
Algorithm	hmac-sha256-v1
Root Hash	9d7bc4ff1619735ce633228e5ca04b253e292380efe904706ad1815320b91bc7
http_headers	64315e4eca0130d46332d6c4936fa6ef8b45671130c5d4e52fdb8dc8ab6609f
dns_responses	afae7ef331f94850127e79ea8703aca6f3884c8cdda06a95e971e96d3a2b3427
tls_handshake	9f3a9eb3fa8ebf4604e242301b4da8b96beaf5358172476f2319cc23f0a76625
connectivity_log	ec50f4b83207b81072acd75b7f6b5d11cdbdc1a3b9ed2d9c000648bf81369fd7
dns_resolution_times	81601d4eab1e1390680a04d0d1e23a2dfbdf8cb3804e3cd7896e03c11ba0b68c

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	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	25.22	29.68	19.03	19.96	-6.2
Google	IPv4	45.85	65.07	55.03	56.69	+9.2
Google	IPv6	42.65	57.34	40.65	44.07	-2
Cloudflare	IPv4	24.24	28.3	21.48	22.14	-2.8
Cloudflare	IPv6	20.41	50.4	23.78	51.92	+3.4

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 30931
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
hea.uum.edu.my. 296 IN A 103.5.180.127
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44634
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 296 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 27758
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 297 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 20424
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 297 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25050
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 296 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 12400
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 297 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

RRSIG

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 64008
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uum.edu.my. 296 IN SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
```

DNSSEC_VALIDATION

```
;; resolution failed: ncache nxrrset
; negative response, fully validated
; hea.uum.edu.my. 296 IN \-SOA; -$NXRRSET
; uum.edu.my. SOA dns1.uum.edu.my. admin.dnsvault.net. 2026061116 10800 3600 604800 86400
; uum.edu.my. RRSIG SOA ...
; DEK3638LQVKIUUFM2G0ERBVG5Q2T7TM0.uum.edu.my. RRSIG NSEC3 ...
; DEK3638LQVKIUUFM2G0ERBVG5Q2T7TM0.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

```

depth=0 C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
verify error:num=18:self-signed certificate
verify return:1
depth=0 C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
verify return:1
CONNECTED(00000010)
---
Certificate chain
 0 s:C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
  i:C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
  a:PKKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
  v:NotBefore: Jan 30 06:51:00 2023 GMT; NotAfter: Dec 31 06:51:00 2056 GMT
-----BEGIN CERTIFICATE-----
MIID+DCCAUcGwIBAgIHLQs0LjTt0EwDQYJKoZIhvcNAQELBQAwgZExCzAJBgNV
BAYTAKNBMQswCQYDVQIQEwJCOzESMBAGA1UEBxMjVmFuY291dmV5MR4wFAYDVQOQ
Ew1GbzJ0aW51dCBlbmMuMREwDwYDVQLEWhGbzJ0aW51dDERMA8GA1UEAxMIcm9y
dGlxRUIxIzAhBgkqhkiG9w0BCQEWFH1cHBvcnRAZm9yZGluZXQuY29tMCAxODIz
MDEyMDA2NTEwMjYzIiwuY291dmV5MjYzIiwuY291dmV5MjYzIiwuY291dmV5
BGNVBAgTAKJDMRIwEAYDVQQHEWlwYy5jb3V2ZXIxFjAUBGNVBAQTDUJvcnRpbmV0
IEluYy4xETAPBgNVBAsTCCEZvcnRpbmV0MREwDwYDVQDEWhGbzJ0aW51dFQjEjMCEG
C5qG5Ib3DQEQJARYUc3VvcG9yZEBmb3J0aW51dC5jb20wgGEiMA0GCSqG5Ib3DQEQE
AQUAA4IBDwAwggEKAoIBAQEwC1LPW/zAXCNtNzFmfhNTMdaA28alx+KQs4bK8p
yco0eMgtj3UjURN9rp2p3VEa43W0+pL4MGQc4D0vKff+8E2L038AiumlLe5MUIf9
PDWQNYmbp+upWjYdQYdRPM3DTC+/km4jDHyk3z6fabWQIMLFED9bvzbkVNW5Gh
8NIY65q7Eb5BlfM8qSDVoEo5EuQEzVgJhdCrz1fEpLPAZUXwPcL+RgX9g+gfaXVl
xayAPxoXzJ7mub1wPEL7WTxVYvBTyf6Rm3T/CLfAoCaFDNa8fy789BAkP9zau/Yk
2v1aUkzSn0jrNLvi7fILmAU+v0Gj0sW88qa8iQ/H+qNZAgMBAAGjUDB0MAwGA1Ud
EwQFMAMBAf8wHQYDVR00BBYEFNwJh6iZ+Ymx/9stk3W7ex9o7tMMB8GA1UdIwQY
MBAaFNwJh6iZ+Ymx/9stk3W7ex9o7tMMB8GA1UdIwQYMBAaFNwJh6iZ+Ymx/9
Pmx2CGiFaFup4v3kgC1LvmJHCLzfjymxfyK55ZY47LJwgcTCYLD57Fb/rf/t
Kw/m0ckAQ23Aas6g08ARHoZYVg35FY0RpEw6yWxncC14WFXoZhPxDbks15xUGq0W
wkDpoNQoc3+ldBQjIKnamFyjiKiWksMqntnfvuLnh85vpPN1CkYMn4LNJWu0ACSQ
4T+aea3qmvnFkgfjll+SHujybsqHwLYRGTG48bttAQ2E0YUc6d0litk60zywpiQJ
a4USaFAL4o/KriryMBFufRfPpGIPMgWdguRyTQqPfs+DdmLNBAc2PcMhTheq9LnoM
DNqyb1dfEwDBRzIQ
-----END CERTIFICATE-----
---
Server certificate
subject=C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
issuer=C = CA, ST = BC, L = Vancouver, O = Fortinet Inc., OU = Fortinet, CN = FortiWEB, emailAddress = support@fortinet.com
---
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 1681 bytes and written 409 bytes
Verification error: self-signed certificate
---
New, TLSv1.2, Cipher is ECDHE-RSA-AES256-GCM-SHA384
Server public key is 2048 bit
Secure Renegotiation IS supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
  Protocol : TLSv1.2
  Cipher : ECDHE-RSA-AES256-GCM-SHA384
  Session-ID: B8E112A05FFFC064E2CAE521B2B0A8FA726CD67DA18ABAD9E8AB60D6BE7B0584
  Session-ID-ctx:
  Master-Key: 46F9410F1540B5D7F76B303E0F89F5FB2449E84DDF6A669D4962F3DACEBBAF145CC9B925EF5E8EE2DBA70A1E01E70477
  PSK identity: None
  PSK identity hint: None
  SRP username: None
  TLS session ticket lifetime hint: 7200 (seconds)
  TLS session ticket:
0000 - 16 d1 0d 9c 1b b6 22 11-4e ca d0 18 12 f3 8d 23 .....".N.....#
0010 - dc 1f b1 17 2d 84 49 e4-18 21 2b 8b 9d 31 83 87 ....-I..!+..1..
0020 - 96 f3 0a 48 01 0f 17 f1-c5 44 e0 a7 0b d1 8e 48 ...H.....D....H
0030 - 91 e5 cd 76 14 07 a4 d3-20 b6 74 1b f8 41 ea 28 ...v....t..A.(
0040 - e5 34 78 4e e3 60 c1 96-1d b2 fe 35 d1 08 e3 da .4xN.`.....5....
0050 - 53 67 24 aa b1 05 45 2b-53 df 65 aa ff 28 53 43 Sg$...E+S.e..(SC
0060 - a8 3f 4d 73 fc 2b f3 1a-8c 44 cc 7a 5c 45 28 6f .?Ms+...D.\E(o

```

```
0070 - ba aa 38 0b e9 9f 28 c3-6e ab b0 75 1a e4 eb f4 ..8...(.n.u....
0080 - c2 95 74 84 3f f2 92 af-1c f3 0f 1c 44 91 6b c8 ..t.?.....D.k.
0090 - 1c 41 d5 80 b0 c1 eb a4-0e 0b c0 ed fb aa 72 b9 .A.....r.
00a0 - 18 9a 4f 2d f2 7c 96 53-0a 41 66 f7 b2 fe 13 93 ..0-|.S.Af.....
00b0 - 39 4e 46 37 7f 97 7e ba-22 c7 94 ba d9 91 b6 3f 9NF7...~".....?
```

```
Start Time: 1781283682
Timeout : 7200 (sec)
Verify return code: 18 (self-signed certificate)
Extended master secret: yes
```

```
---
DONE
```

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	500
Connected IP	103.5.180.127
Connect Time	17.55 ms
TTFB	35.57 ms
Total Time	35.6 ms

Response Headers:

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

IPv4 HTTPS (port 443)

HTTP Status	500
Connected IP	103.5.180.127
Connect Time	17.19 ms
TTFB	88.45 ms
Total Time	88.49 ms

Response Headers:

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

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	200 0.018431 0.596538
TCP Connect IPv4 → port 443	000 0.017179 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
```