

IPv6 Readiness Report

uitm.edu.my — uitm.edu.my



Scan to verify

Category: Education • Generated: 04 Jul 2026, 22:21 MYT • Last Checked: 04 Jul 2026, 03:20 MYT • Verification ID: 0eb3ef7a-fa48-402a-86c7-ffae1a4dd505
Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>
Audit trail: <https://ipv6.my6.my/audit/0eb3ef7a-fa48-402a-86c7-ffae1a4dd505>

| | | |
|--|---|--|
| <p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p> | <p>46%</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> |
|--|---|--|

| | |
|---|--|
| <p>IPv6 ADDRESSES</p> <p>2401:74a0:140::16</p> | <p>IPv4 ADDRESSES</p> <p>202.58.83.54</p> |
|---|--|

Network Information (WHOIS / RDAP)

| | IPv6 Network | IPv4 Network |
|----------------|---|---|
| Organization | Universiti Teknologi MARA | Universiti Teknologi MARA |
| Country | MY | MY |
| ASN | AS24020 | AS24020 |
| ASN Name | UITM-AS-AP - University ITM, Shah Alam, Selangor Malaysia, MY | UITM-AS-AP - University ITM, Shah Alam, Selangor Malaysia, MY |
| Network (CIDR) | 2401:74a0::/32 | 202.58.80.0/20 |

| Web Services (35%) 3 / 8 | | | |
|---|------------------------------|--------|--|
| # | CHECK | RESULT | DETAIL |
| 1 | AAAA Record | PASS | 2401:74a0:140::16 |
| 2 | Globally Routable IPv6 | PASS | All addresses are 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) | PASS | Domain has both A and AAAA records. |
| 8 | HTTP/3 (QUIC) | FAIL | No HTTP/3 support detected. |

| DNS & DNSSEC (25%) 1 / 5 | | | |
|---|-----------------------------|--------|---|
| # | CHECK | RESULT | DETAIL |
| 1 | NS Has AAAA Record | PASS | Nameserver has IPv6 address. |
| 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%) 3 / 6

| # | CHECK | RESULT | DETAIL |
|---|--------------------------------|-------------|-----------------------------------|
| 1 | MX Record Exists | PASS | MX record found. |
| 2 | MX Server Has IPv6 | PASS | MX server has AAAA record. |
| 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 | PASS | 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 | 202.58.83.54 |
| 2 | HTTP over IPv4 | PASS | HTTP (port 80) responds over IPv4 — 140ms TTFB. |
| 3 | HTTPS over IPv4 | PASS | HTTPS (port 443) responds over IPv4 — 154ms TTFB. |

Audit Trail & Evidence Record

| | |
|-------------------|--|
| Verification ID | 0eb3ef7a-fa48-402a-86c7-ffae1a4dd505 |
| Domain | uitm.edu.my |
| Check Mode | Scheduled |
| Status | Completed |
| Started | 04 Jul 2026, 03:15:43 MYT |
| Finished | 04 Jul 2026, 03:20:01 MYT |
| Test Node Profile | dual stack |
| Engine Version | 2.0.0 |
| MGv6C Version | 1.0.0 |
| Audit URL | https://ipv6.my6.my/audit/0eb3ef7a-fa48-402a-86c7-ffae1a4dd505 |

Integrity Verification

| | |
|-----------------------------|--|
| ✓ INTEGRITY VERIFIED | |
| Algorithm | hmac-sha256-v1 |
| Root Hash | 14850706f58df59f8344ca1691d09887f9756819af8b8ea28757299888643d7a |
| http_headers | 5ecaba90de1c01124c7e1a0a349d887f4cd7f44aa9f25cdd7ebee4ec3dee9ff5 |
| dns_responses | 6362e959d803527c4ebd82dbe9a9b50899d2f710f9f645b7ef60a288612b3ae2 |
| tls_handshake | a37ff0ac9addc19c093b59e3d00ef11105cdf5a39ba50a9352c69389b079f951 |
| connectivity_log | c7725110865de14b36843620a1a718723cb653de4f09496bf9d6b0ed1f801cc3 |
| dns_resolution_times | 885775eeee9aa248914e886144e26022a17591731027ebb10f304ead0b4561ee |

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 | 8.3.32 |
| Server Ipv4 | - |
| 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 | 44.09 | 52.85 | 39.64 | 44.89 | -4.5 |
| Google | IPv4 | 50.15 | 63.43 | 53.24 | 53.43 | +3.1 |
| Google | IPv6 | 51.29 | 75.12 | 64.99 | 66.82 | +13.7 |
| Cloudflare | IPv4 | 37.72 | 42.04 | 39.38 | 41.55 | +1.7 |
| Cloudflare | IPv6 | 43.05 | 59.62 | 43.81 | 55.89 | +0.8 |

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 59935
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
uitm.edu.my. 300 IN A 202.58.83.54
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39145
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
edu.my. 3506 IN SOA e.nic.my. hostmaster.nic.my. 2026052753 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 42536
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
uitm.edu.my. 300 IN MX 10 ASPMX3.GOOGLEMAIL.COM.
uitm.edu.my. 300 IN MX 10 ASPMX2.GOOGLEMAIL.COM.
uitm.edu.my. 300 IN MX 1 ASPMX.L.GOOGLE.COM.
uitm.edu.my. 300 IN MX 5 ALT1.ASPMX.L.GOOGLE.COM.
uitm.edu.my. 300 IN MX 5 ALT2.ASPMX.L.GOOGLE.COM.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 55494
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 7

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
uitm.edu.my. 300 IN NS ns3.uitm.edu.my.
uitm.edu.my. 300 IN NS ns1.uitm.edu.my.
uitm.edu.my. 300 IN NS ns2.uitm.edu.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25403
;; flags: qr rd ra; QUERY: 1, ANSWER: 12, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
uitm.edu.my. 300 IN TXT "google-site-verification=50USztdHYiKcdPt7BYK_udFk4zkaTMDxtdnaYliwCMI"
uitm.edu.my. 300 IN TXT "v=spf1 ip4:202.58.82.126 ip4:202.58.84.87 ip4:202.58.84.88 ip4:202.58.84.89 include:_spf.google.com ~all"
uitm.edu.my. 300 IN TXT "google-site-verification=Lzd0qS4AHNX20TpJ1BfuXxBIHQ9Zpx0eS4WsFVhkf0w"
uitm.edu.my. 300 IN TXT "google-site-verification=gDQWcC9MPRNwKms2RVZcBmLjgYjPK6LtkfAvoEvB904"
uitm.edu.my. 300 IN TXT "google-site-verification=HxBt7L0cRdN0jB4fYPF4mVccKNif0_NoqC5QbCbbVY"
uitm.edu.my. 300 IN TXT "cisco-ci-domain-verification=3d24323685c864adbc7c8dcee2dedefc509618b0e54472a5c086f20d8d077508"
uitm.edu.my. 300 IN TXT "adobe-idp-site-verification=fb1f5c68f32b487f97a46b8fc1165137"
uitm.edu.my. 300 IN TXT "google-site-verification=xIRyiQ_3uhwBg40vH5E1e0Nt0Fnu0vAnObS3JmxTat0"
uitm.edu.my. 300 IN TXT "adobe-idp-site-verification=fb1f5c68-f32b-487f-97a4-6b8fc1165137"
uitm.edu.my. 300 IN TXT "google-site-verification=LLOYl3gt-FWIn0QSh17N_LUVmPFWo0AtayuI8dFsS8"
uitm.edu.my. 300 IN TXT "MS=ms99834528"
uitm.edu.my. 300 IN TXT "google-site-verification=K2CodNStu6F-cYSenDcqVTgwo4Q2wMc0vA7sC7sJK4g"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 48017
```

```
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
uitm.edu.my. 300 IN AAAA 2401:74a0:140::16
```

RRSIG

```
ns1.uitm.edu.my. postmaster.salam.uitm.edu.my. 2026070307 14400 3600 1209600 3600
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 33720
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
uitm.edu.my. 266 IN SOA ns1.uitm.edu.my. postmaster.salam.uitm.edu.my. 2026070307 14400 3600 1209600 3600
```

DNSSEC_VALIDATION

```
; unsigned answer
uitm.edu.my. 266 IN SOA ns1.uitm.edu.my. postmaster.salam.uitm.edu.my. 2026070307 14400 3600 1209600 3600
```



```

KwYBBQUHAWEGCCsGAQUFBwMCMBSGA1UdIAQUMBIwBgYEVR0gADAIgZngQwBAGew
VAYDVR0fBE0wSzBjOeEgRYZDaHR0cDovL2Nybc5zZWNoawdvLmNvbS9TZWNoawdv
UHVibGljU2VydmVyQXV0aGVudGljYXRpb255b290UjQ2LmNybcDBhAYIKwYBBQUH
AQEEeDB2ME8GCCsGAQUFBzACHkNodHRwOi8vY3J0LnNlY3RpZ28uY29tL1NlY3Rp
Z290dWJsaWNTZXJ2ZXJbdXR0ZW50awNhdGlvb1Jvb3RSNDYucDdjMCMGCCsGAQUF
BzABhdodHRwOi8vbn2Nzc5zZWNoawdvLmNvbTANBgkqhkiG9w0BAQwFAAOCAgEA
YtOC9Fy+TqECFw40IospI92klGgoSZGPOSQXMBqmsGWZUQ7rux7cjl1du6d9rd6C8
ze1B2e0jkrGkIL/0F1s7vsmgYVafsRoZd/IHUrkoQvX8FZwUsmPu7amgBfaY3g+d
q1x0jNGKb6I6Bzd16LgMD9qxp+3i7GQ0nd9J8LFSietY6Z4jUBzVo0oz8IAU840F
h2HhAuiPw1ai0VnY38RTI+8kepGwVfGxfBWzW9uIjeoIeaosVFvE8cmYUB4TSH
5dUyD0jHct2+8ceKEtIoFU/Ffhq/mDaVnvcDCZxtIgitdMFQdMzaVehmObyhRdDD
4NQCs0gaI9AAgFj4L90tkARzhQLNyRf87Kln+YU0LgCGr9HLg3rG08q+Y4ppls0d
unQZ6ZxPNGIf0ApbPVf5hCe58EZwiWdHIMn9LPP6+F404y8NNugbQixBber+x536
WrZhfZLjEkhp7fFXf9r32rNPFb74X/U90Bdy4Lzpz+X1ukh1BuMxA/EEhdTOS3L
7ABvc7BYSQubQ24900cdkIzUh3ZwDrakMvrbaTxUM2p24N6dB+ns2zptWCva6jzW
r8IWKIMxzxLPv5Kt3ePKcUdvkBU/smqjSczTzzSjIoR5QqA6lN1ZRSnuHIWcVh
JELtkYnTAH41QJ6SAW066GrrUESwN/cgZzL4JLEqZ1Y=
-----END CERTIFICATE-----
2 s:C = GB, 0 = Sectigo Limited, CN = Sectigo Public Server Authentication Root R46
i:C = US, ST = New Jersey, L = Jersey City, 0 = The USERTRUST Network, CN = USERTrust RSA Certification Authority
a:PKKEY: rsaEncryption, 4096 (bit); sigalg: RSA-SHA384
v:NotBefore: Mar 22 00:00:00 2021 GMT; NotAfter: Jan 18 23:59:59 2038 GMT
-----BEGIN CERTIFICATE-----
MIIGLTCCBH2gAwIBAgIRANJ/u8HeNz5SFq1hSVhgmcQwDQYJKoZIhvcNAQEMBQAw
gYxgCzAJBgNVBAYTALVTMRMwEQYDQVQIEWp0ZXcgSmVyc2V5MRQwEgYDVOQHEwtK
ZXJzZXkgQ2l0eTEeMBwGA1UEChMVVGVhLlFVTRVJU1VTVCB0ZXR3b3JrMS4wLWYD
VQ0EYyVU0VSjh1c3Q0U1NBIENlcnRpb2ljYXRpb24gQXV0aG9yaXR5MB4XDTEy
MDMyMjAwMDAwMFoXDTM4MDEwODIzNTk1OVowXzELMAkGA1UEBHMCR0IxGDAWBgNV

```

IPv6 Connection

| | |
|------------|-------------------|
| IP Used | 2401:74a0:140::16 |
| IP Version | 6 |

```

40576A1AE67B0000:error:8000006E:system library: BIO_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
40576A1AE67B0000:error:10000067:BIO routines: BIO_connect:connect error:../crypto/bio/bio_sock2.c:116:
connect:errno=110

```


HTTP Response Evidence

IPv4 HTTP (port 80)

| | |
|--------------|--------------|
| HTTP Status | 200 |
| Connected IP | 202.58.83.54 |
| Connect Time | 7.05 ms |
| TTFB | 132.48 ms |
| Total Time | 132.6 ms |

Response Headers:

```
[  
  "HTTP/1.1 200 OK",  
  "Date: Fri, 03 Jul 2026 19:19:44 GMT",  
  "Server:XXXXXX",  
  "Set-Cookie: 96cf2b6d733363bd0723f19b64e8fb52=2051db64896fadb0f4a5be5c830e315; path=/; HttpOnly",  
  "X-Content-Type-Options: nosniff",  
  "Content-Type: text/html; charset=UTF-8",  
  "Set-Cookie: cookiesession1=678B28D1A88A332634BF2D25132552EC;Expires=Sat, 03 Jul 2027 19:19:51 GMT;Path=/;HttpOnly",  
  "X-Frame-Options: SAMEORIGIN",  
  "X-XSS-Protection: 1; mode=block",  
  "Content-Security-Policy: upgrade-insecure-requests"  
]
```

IPv6 HTTP (port 80)

| | |
|--------------|---|
| HTTP Status | 0 |
| Connected IP | |
| Connect Time | 0 ms |
| TTFB | 0 ms |
| Total Time | 8002.17 ms |
| Error | Failed to connect to uitm.edu.my port 80 after 8002 ms: Timeout was reached |

IPv4 HTTPS (port 443)

| | |
|--------------|--------------|
| HTTP Status | 200 |
| Connected IP | 202.58.83.54 |
| Connect Time | 5.35 ms |
| TTFB | 166.03 ms |
| Total Time | 166.07 ms |

Response Headers:

```
[  
  "HTTP/1.1 200 OK",  
  "Date: Fri, 03 Jul 2026 19:19:44 GMT",  
  "Server:XXXXXX",  
  "Set-Cookie: 96cf2b6d733363bd0723f19b64e8fb52=70c9acdd2b5b9ddc391dad14e2da906f; path=/; HttpOnly",  
  "X-Content-Type-Options: nosniff",  
  "Content-Type: text/html; charset=UTF-8",  
  "Set-Cookie: cookiesession1=678B28D461C123684A8E176D47167601;Expires=Sat, 03 Jul 2027 19:19:51 GMT;Path=/;HttpOnly",  
  "Strict-Transport-Security: max-age=15552000",  
  "X-Frame-Options: SAMEORIGIN",  
  "X-XSS-Protection: 1; mode=block",  
  "Content-Security-Policy: upgrade-insecure-requests"  
]
```

IPv6 HTTPS (port 443)

| | |
|--------------|--|
| HTTP Status | 0 |
| Connected IP | |
| Connect Time | 0 ms |
| TTFB | 0 ms |
| Total Time | 8002.51 ms |
| Error | Failed to connect to uitm.edu.my port 443 after 8002 ms: Timeout was reached |

Connectivity Test Evidence

| Test | Result |
|-----------------------------|-----------------------|
| TCP Connect IPv4 → port 80 | 200 0.006368 0.134950 |
| TCP Connect IPv6 → port 80 | 000 0.000000 0.000000 |
| TCP Connect IPv4 → port 443 | 200 0.006572 0.212541 |
| TCP Connect IPv6 → port 443 | 000 0.000000 0.000000 |

Test Node Network Evidence

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

Egress Connectivity

| | |
|-------------|-------------|
| IPv4 Egress | unreachable |
| IPv6 Egress | unreachable |

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
10.6.101.0/24 dev wg0 scope link
10.6.102.0/24 dev wg0 scope link
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
172.29.0.0/24 dev wg0 scope link
```