IPv6 Readiness Report

admission.utm.my — admission.utm.my

Scan to verify

Category: Education • Generated: 02 Nov 2026, 02:58 MYT • Last Checked: 08 Aug 2026, 18:15 MYT • Verification ID: 444c4f41-c021-411e-bcb9-c0ada340665a
Report generated from National IPv6 Readiness Monitor — https://ipv6.my6.my
Audit trail: https://ipv6.my6.my/audit/444c4f41-c021-411e-bcb9-c0ada340665a

✗

Non-Compliant

MGv6C-1.0

15%

No IPv6 Support

IPV6-ONLY READINESS

Website: ✗ **Not Ready**

DNS: ✗ **Not Ready**

Email: ✗ **Not Ready**

IPV4 ADDRESSES

161.139.22.87

Network Information (WHOIS / RDAP)

	IPv4 Network
Organization	Universiti Teknologi Malaysia
Country	MY
ASN	AS133014
ASN Name	UTM-AS-AP - Universiti Teknologi Malaysia, MY
Network (CIDR)	161.139.0.0/16

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**	PASS	DS record found at parent zone.
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	161.139.22.87
2	**HTTP over IPv4**	PASS	HTTP (port 80) responds over IPv4 — 94ms TTFB.
3	**HTTPS over IPv4**	PASS	HTTPS (port 443) responds over IPv4 — 57ms TTFB.

Audit Trail & Evidence Record

Verification ID	444c4f41-c021-411e-bcb9-c0ada340665a
Domain	admission.utm.my
Check Mode	Manual
Status	Completed
Started	08 Aug 2026, 18:15:34 MYT
Finished	08 Aug 2026, 18:15:38 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/444c4f41-c021-411e-bcb9-c0ada340665a

Integrity Verification

✓ **INTEGRITY VERIFIED**

Algorithm	hmac-sha256-v1
Root Hash	1e59e562093bc54d791f2754001a82c91688eb433325672817cf27c6a5f0000b
http_headers	567662199c6bd2fa7b9c7b845a4b7128a0d154005292390d1c6fcfa101298263
dns_responses	e1449177ee0d2014baa1195cd05d5cd47408333986efd15aa57e0e42e8e57411
tls_handshake	a6c43793e374043e9e5de68a4d1166d9286a04909d61fd24308ee4fa913ff6e8
connectivity_log	5a975994cb6f9a7eb2931ac202f64dcb5ce58121b8389398765f52e49ca45977
dns_resolution_times	c149a481a32ea79426fb7e437449ffe0904a3a095efed88b474068ce7d4144a4

Test Node Identity

Os	Linux srv1440888 6.8.0-136-generic #136-Ubuntu SMP PREEMPT_DYNAMIC Wed Jul 1 21:53:05 UTC 2026 x86_64
Hostname	srv1440888
Php Version	8.3.33
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	24.98	31.16	22.9	23.85	-2.1
Google	IPv4	36.45	164.49	52.41	54.39	+16
Google	IPv6	61.45	77.83	70.71	104.97	+9.3
Cloudflare	IPv4	36.18	45.86	41.96	43.08	+5.8
Cloudflare	IPv6	47.57	81.64	41.66	93.96	-5.9

DNS Evidence

A

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 43400
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.
www3.utm.my.□□3598□IN□A□161.139.22.87
```

DS

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 58786
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

MX

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 29183
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

NS

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 33950
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

TXT

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 1191
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

AAAA

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 10727
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
```

```
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

RRSIG

```
www3.utm.my.
```

DNSKEY

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 26995
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
admission.utm.my.□3598□IN□CNAME□www3.utm.my.

;; AUTHORITY SECTION:
utm.my.□□□3598□IN□SOA□ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

DNSSEC_VALIDATION

```
;; resolution failed: ncache nxrrset
; unsigned answer
admission.utm.my.□3598□IN□CNAME□www3.utm.my.
; www3.utm.my.□□3598□IN□\-SOA□;-$NXRRSET
; utm.my. SOA ns1.utm.my. root.utm.my. 2020111939 1200 600 1209600 3600
```

TLS Handshake Evidence

IPV4 Connection

IP Used	161.139.22.87
IP Version	4

```
depth=0 C = MY, L = Johor Bahru, O = Universiti Teknologi Malaysia, CN = *.utm.my
verify error:num=20:unable to get local issuer certificate
verify return:1
depth=0 C = MY, L = Johor Bahru, O = Universiti Teknologi Malaysia, CN = *.utm.my
verify error:num=21:unable to verify the first certificate
verify return:1
depth=0 C = MY, L = Johor Bahru, O = Universiti Teknologi Malaysia, CN = *.utm.my
verify return:1
CONNECTED(00000010)
---
Certificate chain
 0 s:C = MY, L = Johor Bahru, O = Universiti Teknologi Malaysia, CN = *.utm.my
   i:C = US, O = SSL Corporation, CN = Entrust OV TLS Issuing RSA CA 1
   a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
   v:NotBefore: Jul 15 09:13:46 2025 GMT; NotAfter: Aug 13 16:00:00 2026 GMT
-----BEGIN CERTIFICATE-----
MIIHQDCCBSigAwIBAgIQcEDWxrRn/9BNg7fsoz0qHzANBgkqhkiG9w0BAQsFADBR
MQswCQYDVQQGEwJVUzEYMBYGA1UECgwPU1NMIENvcnBvcmF0aW9uMSgwJgYDVQQD
DB9FbnRydXN0IE9WIFRMUyBJc3N1aW5nIFJTQSBDQSAxMB4XDTI1MDcxNTA5MTM0
NloXDTI2MDgxMzE2MDAwMFowXjELMAkGA1UEBhMCTVkxFDASBgNVBAcMC0pvaG9y
IEJhaHJ1MSYwJAYDVQQKDB1Vbml2ZXJzaXRpIFRla25vbG9naSBNYWxheXNpYTER
MA8GA1UEAwwIKi51dG0ubXkwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIB
AQCuvXHTSt3weoKlo5DeId6KHI83dL/z9t4Bq+HVwqg6BA0fETgrM2kSzJjNiTVh
bFgBHjSjSFMS17oytuxb2sfGycBuHyBwQcKgvEmjax3DEtrUIvD8ybuj2JE4TMOG
fFXd8VYwGMoKg73hZVBsJAYuHl1oW49rzCsfCYr2K2pAvkzndfrNlKf4LYxjwgUN
PvpngnbrMSU018rCdGyOu49wW0TxzxcW5zVGU06MCEJtl4zBzHIR6A+eRn+8fCN2
jLQ9XhIPDoqkVJgj9S86AaL6/Po5kaB/9VtIryqGfmCpm7QyBS7Ko4OWeVdEuYDT
J/5q42urxNyrsvtEFeXwTxUdAgMBAAGjggMFMIIDATAMBgNVHRMBAf8EAjAAMB8G
A1UdIwQYMBaAFGgNRco1wueaG/CzhN3V2n8LicERMGgGCCsGAQUFBwEBBFwwWjA2
BggrBgEFBQcwAoYqaHR0cDovL2NlcnQuc3NsLmNvbS9FbnRydXN0LU9WVExTLUkt
UjEuY2VyMCAGCCsGAQUFBzABhhRodHRwOi8vb2NzcHMuc3NsLmNvbTA2BgNVHREE
LzAtgggqLnV0bS5teYIGdXRtLm15ggp3d3cudXRtLm15gg1TSVNXQTEuVVRNLk1Z
MCMGA1UdIAQcMBowCAYGZ4EMAQICMA4GDCsGAQQBgqkwAQMBAjAdBgNVHSUEFjAU
BggrBgEFBQcDAgYIKwYBBQUHAwEwOwYDVR0fBDQwMjAwoC6gLIYqaHR0cDovL2Ny
bHMuc3NsLmNvbS9FbnRydXN0LU9WVExTLUktUjEuY3JsMB0GA1UdDgQWBBQGCnIF
8cG5V99ogaBke1ZqnBcFIzAOBgNVHQ8BAf8EBAMCBaAwggF8BgorBgEEAdZ5AgQC
BIIBbASCAWgBZgB1AMIxfldFGaNF7n843rKQQevHwiFaIr9/1bWtdprZDlLNAAAB
mA1luo8AAAQDAEYwRAIgIMHfVMhasRibULvVAXwqFX2dgM8JSiSSGBDnlSjfqscC
IHy17QAk00Ie1jjeTkh0GhmOzOKLImK/zpx3JtbbGo6IAHYAyzj3FYl8hKFEX1vB
3fvJbvKaWc1HCmkFhbDLFMMUWOcAAAGYDWW6oQAABAMARzBFAiEAou3kg7R+Mvqd
wTOsJAz6F3bjR7ix8O9wursPymxxOYACIGiwYAZ67VlnNfpueyXTeSYm2T3LHdVO
J1UAGj9KtObVAHUA1219ENGn9XfCx+lf1wC/+YLJM1pl4dCzAXMXwMjFaXcAAAGY
DWW6kwAABAMARjBEAiBiq3HsD4yX8txLpjeqqTuubXLF6g0+RuG1Pv+lfIRR/wIg
CSwjgD5lD/w6e8vaNV/dbbcwZbanDOBg9uG6rKmIywYwDQYJKoZIhvcNAQELBQAD
ggIBADKaAzVN22ZuSa6yJipHAiX/UYaiAlQjLxk6i6KTFqFDyF1VyBRnn4DL9PCH
AK30sFvV3/UvkXnCooamfCl51sZg5gH+DAbBq+Q7W9N2NO9aNBtKEUxzlXpbuk7I
tUxc8uush6usVKAtWG2/Rjhx0MBI4vf3jWSi1r/wVCyqKpvtODRMQoVoDzkBOXRC
O3eOsXXVzFee+mb1nTIuOWkf2szny/8mWSYdyzmGgguP9oAPYU/R55toRpLz1byg
Wkduiuq7CbywnY0adNhq3Jdr3kfSqiCAVvG2K+VHBWEgVik8UNiDGzd9L2Is7X/N
zEpIla8Q3YuVic0nk59lu5pmHJvRIHU/cFEb5XPHSsaowZg7UZmbYm6ynCBwI9+Z
TfZnmYWEGnfg8Y15MdEfiis9CPKK2273UtxRGEMtIapD1HOO9qoSSc5L6xBj+H6C
jaORSeAOnmQ1qgTg2tGsRmj0NsWot2xXCtnwpi21wFcYIePbrz/DVwJcC77Fc0W1
Txbthfd8eVRJyQlFHxjAQjRQCXVZFVjsJPfD5zf09FrhcBajigCjSB5aj2n1IlMM
dAhQoIRBWa4JGL6iQe6BB+p+5l49yPW6o0IPleuVrkCFrH+QT1pTANq/7iG4TBH4
Y3jEf5ryEMDobrOij/FyoVt7k44L9v8L4XO5l5LHdLJQreRB
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, L = Johor Bahru, O = Universiti Teknologi Malaysia, CN = *.utm.my
issuer=C = US, O = SSL Corporation, CN = Entrust OV TLS Issuing RSA CA 1
---
No client certificate CA names sent
---
SSL handshake has read 2208 bytes and written 660 bytes
Verification error: unable to verify the first certificate
---
New, SSLv3, Cipher is AES128-SHA
Server public key is 2048 bit
Secure Renegotiation IS supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
```

```
    Protocol  : TLSv1.2
    Cipher    : AES128-SHA
    Session-ID: 1000FA6EE18732C8777A2AD0E02DF28FE5A8F242896CFB0AE404C9585425A8A6
    Session-ID-ctx:
    Master-Key: 9F89385B6B8C976501B1E723D99F795058C1E78E28DED35855EBD09EB64B2E3CA617F7EEE979A4681DD7D70CF1E29789
    PSK identity: None
    PSK identity hint: None
    SRP username: None
    TLS session ticket lifetime hint: 300 (seconds)
    TLS session ticket:
    0000 - 02 2d 4f 0d 3b 2d 78 26-19 7d 11 5d 06 22 81 f5   .-O.;-x&.}.].".. 
    0010 - f0 6e 3e 45 73 c0 fe 84-c5 4c 8a 3a a7 49 6e b7   .n>Es....L.:.In.
    0020 - 84 05 4a f4 05 56 8a 28-73 f4 08 b4 e6 1c c6 78   ..J..V.(s......x
    0030 - 6e e6 b6 98 9c 0a 9a 94-6c 9f d1 15 f4 b9 3d 40   n.......l.....=@
    0040 - d8 23 41 5b b4 0a 6c 69-89 58 4b ad 08 b0 32 06   .#A[..li.XK...2.
    0050 - bc 05 8e 46 10 c7 45 44-84 31 1e 57 56 31 45 96   ...F..ED.1.WV1E.
    0060 - 18 30 74 4e 56 60 69 9c-23 ab 4f 8b a7 e4 15 43   .0tNV`i.#.O....C
    0070 - bb e7 b2 2b 08 f4 ee 46-87 12 49 64 47 af e6 ba   ...+...F..IdG...
    0080 - a7 1d f7 10 2c 4d 0c 79-97 6b 5c 01 2c 71 20 57   ....,M.y.k\.,q W
    0090 - 01 5d 35 dc bd 10 81 3c-e8 e3 6e 0f 0f d9 d6 51   .]5....<..n....Q
    00a0 - 51 63 43 62 80 af 7a 40-9b 1b 94 04 1d 0d b1 16   QcCb..z@........

    Start Time: 1786184137
    Timeout   : 7200 (sec)
    Verify return code: 21 (unable to verify the first certificate)
    Extended master secret: no
---
```

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	161.139.22.87
Connect Time	25.55 ms
TTFB	88.07 ms
Total Time	88.16 ms

Response Headers:


```
{
    "0": "HTTP/1.1 301 Moved Permanently",
    "1": "Server: nginx",
    "2": "Date: Sat, 08 Aug 2026 10:15:34 GMT",
    "3": "Content-Type: text/html",
    "4": "Content-Length: 162",
    "5": "Connection: keep-alive",
    "6": "Location: https://admission.utm.my/",
    "7": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
    "8": "X-Frame-Options: SAMEORIGIN",
    "9": "X-Content-Type-Options: nosniff",
    "10": "X-XSS-Protection: 1; mode=block",
    "11": "Referrer-Policy: strict-origin-when-cross-origin",
    "13": "HTTP/1.1 200 OK",
    "14": "Server: nginx",
    "15": "Date: Sat, 08 Aug 2026 10:15:34 GMT",
    "16": "Content-Type: text/html; charset=UTF-8",
    "17": "Connection: keep-alive",
    "18": "X-Powered-By: PHP/8.3.33",
    "19": "Vary: Accept-Encoding, Cookie",
    "20": "Cache-Control: max-age=3, must-revalidate",
    "21": "Alt-Svc: h3=\":443\"; ma=86400",
    "22": "X-Cache-Status: HIT",
    "23": "X-Powered-By: PleskLin"
}
```


IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	161.139.22.87
Connect Time	12.08 ms
TTFB	60.36 ms
Total Time	60.4 ms

Response Headers:


```
[
    "HTTP/1.1 200 OK",
    "Server: nginx",
    "Date: Sat, 08 Aug 2026 10:15:35 GMT",
    "Content-Type: text/html; charset=UTF-8",
    "Connection: keep-alive",
    "X-Powered-By: PHP/8.3.33",
    "Vary: Accept-Encoding, Cookie",
    "Cache-Control: max-age=3, must-revalidate",
    "Alt-Svc: h3=\":443\"; ma=86400",
    "X-Cache-Status: STALE",
    "X-Powered-By: PleskLin"
]
```


Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.012039 0.024765
TCP Connect IPv4 → port 443	000 0.011367 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
fd7a:115c:a1e0::1136:5807 dev tailscale0 proto kernel metric 256 pref medium
fe80::/64 dev eth0 proto kernel metric 256 pref medium
fe80::/64 dev tailscale0 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
```