

IPv6 Readiness Report

umt.edu.my — umt.edu.my

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Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/8d40db1c-e31b-4504-bc4f-c5d9fefe3696>**Non-Compliant**

MGv6C-1.0

47%**Partial Support****IPv6-ONLY READINESS**Website: **X Not Ready**DNS: **✓ Ready**Email: **X Not Ready****IPv4 ADDRESSES**

103.255.170.100

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	Universiti Malaysia Terengganu
Country	MY
ASN	AS59263
ASN Name	UMT-AS Universiti Malaysia Terengganu, MY
Network (CIDR)	103.255.170.0/23

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%)

3 / 5

#	CHECK	RESULT	DETAIL
1	NS Has AAAA Record	PASS	Nameserver has IPv6 address.
2	NS Reachable via IPv6	PASS	Nameserver is reachable via IPv6 on port 53.
3	NS Answers Queries via IPv6	PASS	DNS queries answered 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%) 4 / 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	DKIM selector found: mail_domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.255.170.100
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 292ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 246ms TTFB.

Audit Trail & Evidence Record

Verification ID	8d40db1c-e31b-4504-bc4f-c5d9fefe3696
Domain	umt.edu.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:12:08 MYT
Finished	07 Mar 2026, 01:12:32 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/8d40db1c-e31b-4504-bc4f-c5d9fefe3696

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	f5dd7137b7c8828c7079abf633680e4b809fb48c19e329ee4f24f614ea204abb
http_headers	0b493c5ea5ef9f6b1bf6c25a156635a04fa64980565e2f236029a3866140b301
dns_responses	db753acb3853ccc6f614a4b632ac5bc7f651a98aa826a5841051f7d0e69fa04bf
tls_handshake	dff7a61906093344d242b4d05e78b3ac5f13e6fef1be7fb0cb74c5e0da6b5b0
connectivity_log	6f0c8defa401121071446bd2920bb4a6c259fc69523dd46f7bc9b3b72b3b1372
dns_resolution_times	7bfd29b3882b16920b5a6a69521e800ac8f6c2a7d50ee2dff7ade286cbd2e2ec

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	17.94	18.42	6.9	7.83	-11
Google	IPv4	16.03	22.79	27.06	29.07	+11
Google	IPv6	26.09	31.06	22.15	33.45	-3.9
Cloudflare	IPv4	19	19.06	8.95	20.03	-10.1
Cloudflare	IPv6	19.07	22.94	29.13	29.48	+10.1

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 58298
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
umt.edu.my. 0034390IN0A0103.255.170.100
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 57719
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
edu.my. 00018000IN0S0Ab.nic.my. hostmaster.nic.my. 2026018482 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 26008
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
umt.edu.my. 0030660IN0MX010 alt3.aspmx.l.google.com.
umt.edu.my. 0030660IN0MX05 alt1.aspmx.l.google.com.
umt.edu.my. 0030660IN0MX05 alt2.aspmx.l.google.com.
umt.edu.my. 0030660IN0MX01 aspmx.l.google.com.
umt.edu.my. 0030660IN0MX010 alt4.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 8991
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
umt.edu.my. 0036000IN0NS0ns3.umt.edu.my.
umt.edu.my. 0036000IN0NS0ns1.umt.edu.my.
umt.edu.my. 0036000IN0NS0ns2.umt.edu.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 30350
;; flags: qr rd ra; QUERY: 1, ANSWER: 9, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
umt.edu.my. 0036000IN0TXT0"v=spf1 include:_spf.google.com ~all"
umt.edu.my. 0036000IN0TXT0"v=DMARC1; p=none; rua=mailto:rua@dmARC.brevo.com"
umt.edu.my. 0036000IN0TXT0"MS=797646F7B8752FF58A5242F266DBBB57F6FD703F"
umt.edu.my. 0036000IN0TXT0"google-site-verification=QewbmCLWgo6cf6LReS9RyYoAuDpTbUaBEcxwM867DY"
umt.edu.my. 0036000IN0TXT0"ca3-ea2f54385dc54db892983296d6b1ddcd"
umt.edu.my. 0036000IN0TXT0"k=rsa;
p=MIgFMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDeMVIzrCa3T14JsNY0IRv5/2V1/v2itlviLQbWxsa7shBD6TrBkswsFUToPyMRWC9tbr/5ey0nRBH0ZVxp+lsmTxd2Y2z+Fap06ra2VsXfbJP3HE6wA00YtVEJt1TmeczhEd2Jiz/
umt.edu.my. 0036000IN0TXT0"cisCo-ci-domain-verification=622a684cad35284cff25eb09c3ef5f344f5ce45aa9fe120b85d834df7f06737b"
umt.edu.my. 0036000IN0TXT0"brevo-code:75764e965615ae473874e732c30f5ee6"
umt.edu.my. 0036000IN0TXT0"facebook-domain-verification=xwu0mm339m59jbqwy4lu06ixzivawb"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 31821
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
umt.edu.my. 00600IN0SOA0ns1.umt.edu.my. postmaster.umt.edu.my. 2026030501 10800 3600 604800 60
```

RRSIG

```
ns1.umt.edu.my. postmaster.umt.edu.my. 2026030501 10800 3600 604800 60
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 40645
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
umt.edu.my. 00600IN0SOA0ns1.umt.edu.my. postmaster.umt.edu.my. 2026030501 10800 3600 604800 60
```

DNSSEC_VALIDATION

```
; unsigned answer
umt.edu.my. 0036000IN0SOA0ns1.umt.edu.my. postmaster.umt.edu.my. 2026030501 10800 3600 604800 60
```


TLS Handshake Evidence

IPV4 Connection

IP Used	103.255.170.100
IP Version	4

```

depth=0 CN = *.umt.edu.my
verify error:num=20:unable to get local issuer certificate
verify return:1
depth=0 CN = *.umt.edu.my
verify error:num=21:unable to verify the first certificate
verify return:1
depth=0 CN = *.umt.edu.my
verify return:1
CONNECTED(00000010)
---
Certificate chain
 0 s:CN = *.umt.edu.my
   i:C = GB, ST = Greater Manchester, L = Salford, O = Sectigo Limited, CN = Sectigo RSA Domain Validation Secure Server CA
   a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
   v:NotBefore: Apr 10 00:00:00 2025 GMT; NotAfter: Mar 11 23:59:59 2026 GMT
-----BEGIN CERTIFICATE-----
MIIGLzCCBRegAwIBAgIRAPtHtJrLq410VpOH7sZRvWYdQYJKoZIhvcNAQELBQAw
gY8xCzAJBgNVBAYTAkdCMRswGQYDVQIEXJHcmVhdGVyIEIhbmNoZXN0ZlxiEDAO
BgNVBAcTB1NhbGZvcml0aW40aW50aW50aW50aW50aW50aW50aW50aW50aW50
AxMuU2VjdGlnbyBSU0EgRG9tYWluIFZhbGkYXRpb24gU2VjdXJlIFNlcnZlciBD
QTAeFw0yNTA0MTAwMDAwMDBaFw0yNTA0MTAwMDAwMDBaFTATBGNVBAAMMDCou
dw10LmVkdS5teTCCASIdWQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBAKibvAum
s1PvBpnTKgZgj1jQhDww/LFdgS0BiZPe9UYzCvBlqhhgJ7RsX0tgwiSY+eqLQvr
Nt0SiJjU7FBid0qI5K5REwDzn1lBhdT2yryidLNQAbzuleqRb76PPJKz/pCfzN0
YSRvMF8cw+n5p1P3lz53CIk025LDp0LdFh00ezPI9vIG3RoUqkVys/spSna00pZv
4s2r3JJeyKRVJq6sNEm3IcbxpmwCoMfwZ4q49CD/9AaWd0LZlB0zJhYx0x1eM9v
w0IapLH3U0sLUQdLKag00+9S0K2ve7rNfRLzbi0kzn06RR0M4jqla0c0GmF/IvM
2q10fgI925yYAvMCAwEAAaOCAswggL3MB8GA1UdIwQYMBaAFI2MXsRUrYrhd+mb
+zsF4bgBjWHMB0GA1UdDgQWBBC5CRGDY9sjPYag4ULhsQ1Qo+UdTA0BgNVHQ8B
AF8EBAMCBAwDAYDVR0TAQH/BAIwADAdBgNVHSUEFjAUBgggrBgEFBQcDAQYIKwYB
BQUHAWIwSQYDVR0gBEIwQDA0BgSrBgEEAbIxAQICBzAlMCMGCCsGAQUFBwIBFhdo
dHRwczovLjNlY3RpZ28uY29tL0NQUzAIBGZngQwBAgEwgYOGCCsGAQUFBwEBBhw
djBPPBgggrBgEFBQcwoAoZDAHR0cDovL2Nydc5zZWNoaWdvLmNvbS9TZWNoaWdvU1NB
RG9tYWluVmFsaWRhdGlvbmlY3VjZVNLcnZlcnNlNmNydDAjBgggrBgEFBQcwoAYX
aHR0cDovL29jc3Auc2VjdGlnby5jb20wIwYDVR0RBwwGoIMKi51bXQuZWR1Lm15
ggp1bXQuZWR1Lm15MIIBfwYKkYBBaHwEIEAgSCAW8EggFrAwkAdwCWL2S/VV1X
rfdh2g3CEJ36fA61fak8zZuRqQ/D8qpxgAAAZydvC8YAAAEAwBIMEYCIQC+13V7
EofEK3Y6VQLCQ9Szhw7nd8TJgYvYAR4UeK6zwIhA0SdJL/9bhs7/h9G5JYPLMF2
2cBqQxsxCu+vbgqI9aNwAHYAGybUxyiqb/66A294Kk0BkarOLXiD670XXBLSVM
x9QAAAGHwBwuxgAABAMARzBFAiEAs3p1BqrBaiG2G1jtqoWjSSMZe0nmoFXY1w9
uC8YICIAKsYzTj9fC7zhvq3AP1PGdEp/HT1XheaE284QE+eV7bAHYADleUvPOu
qT4zGyyZB7P3kn+bwj1xMiXdIaklrGHFTiEAAAGHwBwysAAABAMARzBFAiBRz6+b
NrI/Wb0xysCS3A94mRasTFcmQBaIEAo2aRr6wIhALhs9ToG3YiH6Ap0TLdeqkNL
hqH+nJs1W/7yXWS0u/jMA0GCSqGSIb3DQEBCwUAA4IBAQA+BEFYauSgp49jBEDL
dATYPUoR3z6mG2xbCtkb7L/g7hNMxeu4w+mwLsLXI/Tv/NXLRf0wmqtVU+ucT31
QH/lDk1aID9kbWioQ3wcpjFFjYQI9zv6gm0SiMME7WdcMVCpoWaBTIweAUR0y55
EA9c66vaL+dHNv0HMnkToDCva4/r5q0hztTeUdGBE4EsL2P3k3WCioi3JdQdYgSt
r2LAGVt7b7BqQPT9bJdjiu0XBYoRNKI1A5bCRLp97NtLFGuH3ToPiauLH5D6AKWn
WCL1BHsAaVySxVdkuKnKIA45Y71p0GP/tRTE9V/wHsf+PVVF2gFFFMEKn+APGyce
wmbd
-----END CERTIFICATE-----
---
Server certificate
subject=CN = *.umt.edu.my
issuer=C = GB, ST = Greater Manchester, L = Salford, O = Sectigo Limited, CN = Sectigo RSA Domain Validation Secure Server CA
---
No client certificate CA names sent
Peer signing digest: SHA256
Peer signature type: RSA
Server Temp Key: ECDH, prime256v1, 256 bits
---
SSL handshake has read 2289 bytes and written 438 bytes
Verification error: unable to verify the first 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: CFFE145CAC712725B13EF15C2F5A6E3C037C630E3C68E23AD9D0091B01D9FE70
Session-ID-ctx:
Master-Key: 99C8A0966BF14A3A9C929BD5CE3E119FEF9FAD39D3598C6BF495EEAB63E440DCDBB8B97724E7140209B3288CF64993A9
PSK identity: None
PSK identity hint: None
SRP username: None
TLS session ticket lifetime hint: 300 (seconds)
TLS session ticket:
0000 - f6 e1 dc 0a 64 fb ac c8-f6 6f 01 2e 2e 34 f3 f3   ....d...o...4..
0010 - 4e b8 01 3f aa f2 3a 14-74 c2 f5 0c ca 89 71 1c   N..?...t.....q.
0020 - c6 77 ad fc ff 78 e4 f9-bc 7a b6 55 07 45 72 a1   .w...x...z.U.Er.
0030 - 87 a8 dd 62 a8 9e 84 61-49 dc 8b 97 3b 26 4b 55   ..b...aI...;&KU
0040 - fc a8 b8 9a b5 95 e6 05-90 d4 42 a6 6b 16 f9 89   .....B.k...
0050 - 9a 5c c2 ec af 6b 04 10-56 08 1e 9a ba b9 e9 9f   .\...k..V.....
0060 - 8a c5 ad 8c af 56 b5 c1-40 4b fc 22 bb 88 8e 16   ....V..@K."....
0070 - 19 a1 67 21 13 32 91 34-cb 72 7a 07 9a 33 68 1a   ..g!.2.4.rz..3h.
0080 - 25 af fb 96 f4 08 a5 4a-25 3c e7 68 10 95 5c 74   %.....J%<.h...\t
0090 - e3 a1 47 af 34 4a 51 a9-ab 7a 65 a5 38 39 30 e6   ..G.4JQ..ze.890.
00a0 - 39 f4 22 7a 55 d1 7a bb-3e 71 30 83 f2 c3 86 ea   9."zU.z.>q0.....
00b0 - 33 0d 93 28 05 33 65 2d-13 7a f5 77 e6 f2 22 5a   3..(.3e-.z.w..."Z
00c0 - ef 7d d3 72 14 3e e2-09 57 0c 7a 98 9d e9 b5   .}.r.>...W.z....

Start Time: 1772788351
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	103.255.170.100
Connect Time	36.23 ms
TTFB	269.98 ms
Total Time	270.08 ms

Response Headers:

```
{
  "0": "HTTP/1.1 302 Found",
  "1": "Date: Fri, 06 Mar 2026 09:12:31 GMT",
  "2": "Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.29",
  "3": "Location: https://umt.edu.my/",
  "4": "Content-Type: text/html; charset=iso-8859-1",
  "6": "HTTP/1.1 200 OK",
  "7": "Date: Fri, 06 Mar 2026 09:12:31 GMT",
  "8": "Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.29",
  "9": "X-Powered-By: PHP/7.4.29",
  "10": "Set-Cookie: PHPSESSID=m769arhkf6a5464rc0q6r592kr; path=/",
  "11": "Expires: Thu, 19 Nov 1981 08:52:00 GMT",
  "12": "Cache-Control: no-store, no-cache, must-revalidate",
  "13": "Pragma: no-cache",
  "14": "Link: <https://umt.edu.my/index.php?rest_route=/>; rel=\\"https://api.w.org/\\"",
  "15": "Link: <https://umt.edu.my/index.php?rest_route=/wp/v2/pages/77>; rel=\\"alternate\\"", title=\\"JSON\\"", type=\\"application/json\"",
  "16": "Link: <https://umt.edu.my/>; rel=shortlink",
  "17": "Content-Type: text/html; charset=UTF-8"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.255.170.100
Connect Time	17.64 ms
TTFB	243.81 ms
Total Time	243.86 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 06 Mar 2026 09:12:31 GMT",
  "Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.29",
  "X-Powered-By: PHP/7.4.29",
  "Set-Cookie: PHPSESSID=153h0aas0lelm1hek4ttup59d2; path=/",
  "Expires: Thu, 19 Nov 1981 08:52:00 GMT",
  "Cache-Control: no-store, no-cache, must-revalidate",
  "Pragma: no-cache",
  "Link: <https://umt.edu.my/index.php?rest_route=/>; rel=\\"https://api.w.org/\\"",
  "Link: <https://umt.edu.my/index.php?rest_route=/wp/v2/pages/77>; rel=\\"alternate\\"", title=\\"JSON\\"", type=\\"application/json\"",
  "Link: <https://umt.edu.my/>; rel=shortlink",
  "Content-Type: text/html; charset=UTF-8"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	302 0.018603 0.134999
TCP Connect IPv4 → port 443	000 0.017870 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
```