

IPv6 Readiness Report

umk.edu.my — umk.edu.my



Scan to verify

Category: Education • Generated: 13 Jun 2026, 19:30 MYT • Last Checked: 13 Jun 2026, 01:27 MYT • Verification ID: ed0deabf-d9b4-4824-865d-64d4c2fd7924

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

Audit trail: <https://ipv6.my6.my/audit/ed0deabf-d9b4-4824-865d-64d4c2fd7924>

<p>X</p> <p>Non-Compliant</p> <p>MGv6C-1.0</p>	<p>26%</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: ✓ Ready</p>
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<p>IPv4 ADDRESSES</p> <p>103.101.246.12</p>
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Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	Universiti Malaysia Kelantan
Country	MY
ASN	AS137005
ASN Name	UMK-AS-AP - Universiti Malaysia Kelantan, MY
Network (CIDR)	103.101.244.0/22

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%) 5 / 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	PASS	SMTP port 25 responds over IPv6.
4	STARTTLS over IPv6	PASS	STARTTLS supported 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%) 1 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.101.246.12
2	HTTP over IPv4	FAIL	HTTP is not accessible over IPv4.
3	HTTPS over IPv4	FAIL	HTTPS is not accessible over IPv4.

Audit Trail & Evidence Record

Verification ID	ed0deabf-d9b4-4824-865d-64d4c2fd7924
Domain	umk.edu.my
Check Mode	Scheduled
Status	Completed
Started	13 Jun 2026, 01:24:46 MYT
Finished	13 Jun 2026, 01:27:45 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/ed0deabf-d9b4-4824-865d-64d4c2fd7924

Integrity Verification

<p>✓ INTEGRITY VERIFIED</p>	
Algorithm	hmac-sha256-v1
Root Hash	bc52de9d9eadad485c136d38835f8e21081044045dfb22ee6b1d3a302c053d1f
http_headers	fc128bd536829b281df70cd293f769f550de463c6e517bbc3a508dccfb1efef8
dns_responses	0f7bf9759505fef7b63d0f7e46befea18b0d9e18b3b9e37cc7618f3dbe926aa
tls_handshake	9f6d1db78871790ff1795b0c46782f7d43aaaae1d0c2ff6509cad166ab13eb67
connectivity_log	c571529628ae93d3d5180dec20e307692d772428bf4569b1feeb29b40bc18e78
dns_resolution_times	b097ee6d95cd2c534345c2995525a65a370dee22c19b78c49099b835e22ae31a

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	19.12	19.16	20.31	21.59	+1.2
Google	IPv4	29.45	31.97	31.85	37.61	+2.4
Google	IPv6	39.78	40.07	31.78	62.1	-8
Cloudflare	IPv4	10.35	26.62	9	18.97	-1.4
Cloudflare	IPv6	31.85	40.37	12.02	26.64	-19.8

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 29358
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
umk.edu.my. 0009000IN A 103.101.246.12
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63056
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
edu.my. 00020560IN SOA e.nic.my. hostmaster.nic.my. 2026046676 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 11186
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
umk.edu.my. 0009000IN MX 10 ASPMX2.GOOGLEMAIL.COM.
umk.edu.my. 0009000IN MX 5 ALT2.ASPMX.L.GOOGLE.COM.
umk.edu.my. 0009000IN MX 10 ASPMX3.GOOGLEMAIL.COM.
umk.edu.my. 0009000IN MX 5 ALT1.ASPMX.L.GOOGLE.COM.
umk.edu.my. 0009000IN MX 1 ASPMX.L.GOOGLE.COM.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 47278
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 3

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
umk.edu.my. 0009000IN NS ns1.umk.edu.my.
umk.edu.my. 0009000IN NS ns2.umk.edu.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 38995
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
umk.edu.my. 0009000IN TXT "v=spf1 include:_spf.google.com include:mailgun.org include:spf.protection.outlook.com ~all"
umk.edu.my. 0009000IN TXT "MS=ms60345149"
umk.edu.my. 0009000IN TXT "MS=8AB53C8B76EE2E7433A7FB6782ABD3BD1227839E"
umk.edu.my. 0009000IN TXT "abuseipdb-verification=7ZeMw6nw"
umk.edu.my. 0009000IN TXT "6mvgbvly9jdk41112g17w2y6gtdmr53"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44771
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
umk.edu.my. 0003140IN SOA ns2.umk.edu.my. root.ns2.umk.edu.my. 2026061103 10800 1800 604800 86400
```

RRSIG

```
ns2.umk.edu.my. root.ns2.umk.edu.my. 2026061103 10800 1800 604800 86400
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 21045
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
umk.edu.my. 313 IN SOA ns2.umk.edu.my. root.ns2.umk.edu.my. 2026061103 10800 1800 604800 86400
```

DNSSEC_VALIDATION

```
; unsigned answer
umk.edu.my. 313 IN SOA ns2.umk.edu.my. root.ns2.umk.edu.my. 2026061103 10800 1800 604800 86400
```

TLS Handshake Evidence

IPv4 Connection

IP Used	103.101.246.12
IP Version	4

```
40773E70AD750000:error:8000006E:system library:BI0_connect:Connection timed out:../crypto/bio/bio_sock2.c:114:calling connect()
40773E70AD750000: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	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8003.06 ms
Error	Failed to connect to umk.edu.my port 80 after 8003 ms: Timeout was reached

IPv4 HTTPS (port 443)

HTTP Status	0
Connected IP	
Connect Time	0 ms
TTFB	0 ms
Total Time	8002.81 ms
Error	Failed to connect to umk.edu.my port 443 after 8002 ms: Timeout was reached

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	000 0.000000 0.000000
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
```