

# IPv6 Readiness Report

iium.edu.my — iium.edu.my



Scan to verify

Category: Education • Generated: 13 Jun 2026, 19:21 MYT • Last Checked: 13 Jun 2026, 01:00 MYT • Verification ID: f28e0144-fe08-4961-8997-208032e0ffc4

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

Audit trail: <https://ipv6.my6.my/audit/f28e0144-fe08-4961-8997-208032e0ffc4>

<p><b>X</b></p> <p><b>Non-Compliant</b></p> <p>MGv6C-1.0</p>	<p><b>32%</b></p> <p><b>No IPv6 Support</b></p>	<p><b>IPv6-ONLY READINESS</b></p> <p>Website: <b>X Not Ready</b></p> <p>DNS: <b>X Not Ready</b></p> <p>Email: <b>X Not Ready</b></p>
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<p><b>IPv4 ADDRESSES</b></p> <p>210.48.222.141</p>
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## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	International Islamic University Of Malaysia
Country	MY
ASN	AS45344
ASN Name	IIUM-MY - International Islamic University Of Malaysia, MY
Network (CIDR)	210.48.216.0/21

Web Services (35%) <span style="float: right;">0 / 8</span>			
#	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%) <span style="float: right;">0 / 5</span>			
#	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	<b>Signing Algorithm</b>	<b>INFO</b>	No DNSKEY record found.

**Email Services** (25%) 4 / 6

#	CHECK	RESULT	DETAIL
1	<b>MX Record Exists</b>	<b>PASS</b>	MX record found.
2	<b>MX Server Has IPv6</b>	<b>PASS</b>	MX server has AAAA record.
3	<b>SMTP Reachable via IPv6</b>	<b>FAIL</b>	SMTP is not reachable over IPv6.
4	<b>STARTTLS over IPv6</b>	<b>FAIL</b>	STARTTLS not available over IPv6.
5	<b>SPF Record</b>	<b>PASS</b>	SPF record found.
6	<b>DKIM Selector</b>	<b>INFO</b>	DKIM selector found: google._domainkey
7	<b>DMARC Record</b>	<b>PASS</b>	DMARC record found.

**IPv4 Baseline** (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	<b>A Record</b>	<b>PASS</b>	210.48.222.141
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4.

### Audit Trail & Evidence Record

Verification ID	f28e0144-fe08-4961-8997-208032e0ffc4
Domain	iium.edu.my
Check Mode	Scheduled
Status	Completed
Started	13 Jun 2026, 01:00:19 MYT
Finished	13 Jun 2026, 01:00:43 MYT
Test Node Profile	ipv6 only
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/f28e0144-fe08-4961-8997-208032e0ffc4

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	e5f24faa81b901ae879ed51ab50d1934f7d8b81cd309b2100fa44e1962ed545f
http_headers	5ce3ff764c4135b6bd5084bf11c24886ed7636b382a5b81e5aaf76a79f812496
dns_responses	8bd5b40121202e88d89f70b08e54edd9b3e7c950223d8a6133f7dac21d47f895
tls_handshake	1ab48ba8b1aff8037da3ac41da641aa00767f486d3bbd62624ec42cd52c2cb7f
connectivity_log	867d9f8623c46d3101cf5f06c40868f04d36876bf3797bac544b61e022792129
dns_resolution_times	b2190cac1562f5eb6bcb9bf66de108df6906e07e1f1c0bc217556d347f09c38b

### 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	19.38	20.42	6.21	7.99	-13.2
Google	IPv4	31.16	35.19	28.07	44.49	-3.1
Google	IPv6	35.22	47.99	23.51	36.08	-11.7
Cloudflare	IPv4	23.69	24.05	25.31	30.65	+1.6
Cloudflare	IPv6	39.3	40.43	22.39	40.94	-16.9



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63690
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
iiu.edu.my. 3600 IN A 210.48.222.141
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 6301
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
edu.my. 3518 IN SOA e.nic.my. hostmaster.nic.my. 2026046676 1800 900 604800 3600
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 12647
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
iiu.edu.my. 3600 IN MX 10 alt4.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 11 aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 5 alt1.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 5 alt2.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 10 alt3.aspmx.l.google.com.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 17916
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 2

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
iiu.edu.my. 3600 IN NS adnin.iiu.edu.my.
iiu.edu.my. 3600 IN NS firdaus.iiu.edu.my.
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50261
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
iiu.edu.my. 3600 IN TXT "v=spf1 include:_spf.google.com ~all"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50678
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
iiu.edu.my. 3577 IN SOA adnin.iiu.edu.my. hostmaster.iiu.edu.my. 2026061101 3600 3600 60480 3600
```

### RRSIG

```
adnin.iiu.edu.my. hostmaster.iiu.edu.my. 2026061101 3600 3600 60480 3600
```

**DNSKEY**

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 40626
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
iium.edu.my. IN SOA admin.iium.edu.my. hostmaster.iium.edu.my. 2026061101 3600 3600 60480 3600
```

**DNSSEC\_VALIDATION**

```
; unsigned answer
iium.edu.my. IN SOA admin.iium.edu.my. hostmaster.iium.edu.my. 2026061101 3600 3600 60480 3600
```





```
DTM4MDEx0TAzMTQwN1owUDEKMCIGA1UECXMbr2xvYmFsU2lnbiBFQ0MgUm9vdCBD
QSAtIFI1MRMwEQYDVQKEwpHbG9iYwxtaWduMRMwEQYDVQDEwpHbG9iYwxtaWdu
MHYwEAYHKoZIzj0CAQYFK4EEACIDYgAER0U0lt9Xb/p0dEh+J8LttV7HpI6SFkc
8GIxLcB6KP4ap1yztsyX50XUWPrRd21DosCHZTQKH3rd6zwcwTdTaRvQU4f8ke
h0vRnkmSh5SHDDqFSmafVnTTZdhBoZKo0IwQDA0BgNVHQ8BAf8EBAMCAQYwDwYD
VR0TAQH/BAUwAwEB/zAdBgNVHQ4EFgQUPEyPSJvqB8ohREom3m7e0oPQn1kwCgYI
KoZIzj0EAwMDAAAwZQIXA0VpEsLu28YxuglB4Zf4+/2a4n0Sye18ZNPBLSWLVtmg
515dTguDnFt2KaAJJiFqYgIwcdK1j1zq0+F4CYWodZI7yFz9S08NdCKoC0JuxUn0
xwy8p2Fp8fc74SL+SvzZpA3
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = Kuala Lumpur, L = Kuala Lumpur, O = International Islamic University Malaysia, CN = *.iiu.edu.my
issuer=C = BE, O = GlobalSign nv-sa, CN = GlobalSign ECC OV SSL CA 2018
---
No client certificate CA names sent
Peer signing digest: SHA256
Peer signature type: ECDSA
Server Temp Key: X25519, 253 bits
---
SSL handshake has read 3076 bytes and written 406 bytes
Verification: OK
---
New, TLSv1.2, Cipher is ECDHE-ECDSA-AES256-GCM-SHA384
Server public key is 256 bit
Secure Renegotiation IS supported
Compression: NONE
```



## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	301
Connected IP	210.48.222.141
Connect Time	17.61 ms
TTFB	74.8 ms
Total Time	74.97 ms
Error	Maximum (3) redirects followed

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Location: https://iiu.edu.my:443/",
  "2": "Content-Length: 98",
  "3": "Content-Type: text/html",
  "5": "HTTP/1.1 301 Moved Permanently",
  "6": "Server: nginx/1.10.2",
  "7": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
  "8": "Content-Type: text/html",
  "9": "Content-Length: 185",
  "10": "Connection: keep-alive",
  "11": "Location: https://www.iiu.edu.my/",
  "12": "Set-Cookie: cookiesession1=678B28673474CB45E90498FB3731A702;Expires=Sat, 12 Jun 2027 17:00:43 GMT;Path=/;HttpOnly",
  "14": "HTTP/1.1 302 Found",
  "15": "Server: nginx/1.10.2",
  "16": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
  "17": "Content-Type: text/html; charset=UTF-8",
  "18": "Connection: keep-alive",
  "19": "Location: https://iiu.edu.my/v2",
  "20": "Set-Cookie: cookiesession1=678B2867E72B18FEE04D03F7C36096A4;Expires=Sat, 12 Jun 2027 17:00:43 GMT;Path=/;HttpOnly",
  "22": "HTTP/1.1 301 Moved Permanently",
  "23": "Server: nginx/1.10.2",
  "24": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
  "25": "Content-Type: text/html",
  "26": "Content-Length: 185",
  "27": "Connection: keep-alive",
  "28": "Location: https://www.iiu.edu.my/v2"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	301
Connected IP	210.48.222.141
Connect Time	12.09 ms
TTFB	60.37 ms
Total Time	60.48 ms
Error	Maximum (3) redirects followed

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx/1.10.2",
  "2": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
  "3": "Content-Type: text/html",
  "4": "Content-Length: 185",
  "5": "Connection: keep-alive",
  "6": "Location: https://www.iiu.edu.my/",
  "7": "Set-Cookie: cookiesession1=678B28673BE0B301A86EC20820E24D46;Expires=Sat, 12 Jun 2027 17:00:43 GMT;Path=/;HttpOnly",
  "9": "HTTP/1.1 302 Found",
  "10": "Server: nginx/1.10.2",
  "11": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
  "12": "Content-Type: text/html; charset=UTF-8",
  "13": "Connection: keep-alive",
  "14": "Location: https://iiu.edu.my/v2",
  "15": "Set-Cookie: cookiesession1=678B286791DF1493B17C6E12DCAB2FDA;Expires=Sat, 12 Jun 2027 17:00:43 GMT;Path=/;HttpOnly",
  "17": "HTTP/1.1 301 Moved Permanently",
  "18": "Server: nginx/1.10.2",
  "19": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
}
```

```

"20": "Content-Type: text/html",
"21": "Content-Length: 185",
"22": "Connection: keep-alive",
"23": "Location: https://www.iium.edu.my/v2",
"25": "HTTP/1.1 301 Moved Permanently",
"26": "Server: nginx/1.10.2",
"27": "Date: Fri, 12 Jun 2026 17:02:54 GMT",
"28": "Content-Type: text/html; charset=iso-8859-1",
"29": "Connection: keep-alive",
"30": "Location: https://www.iium.edu.my/v2/"
    }
    
```

### Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.004975 0.010519
TCP Connect IPv4 → port 443	301 0.005639 0.033523

### Test Node Network Evidence

Node Profile	ipv6 only
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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
    
```