


IPv6 Readiness Report

iium.edu.my — iium.edu.my

Category: Education • Generated: 21 Apr 2026, 18:19 MYT • Last Checked: 07 Mar 2026, 01:11 MYT • Verification ID: 35b10189-f220-4326-bc83-0075869c92da
 Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>
 Audit trail: <https://ipv6.my6.my/audit/35b10189-f220-4326-bc83-0075869c92da>

 Non-Compliant <small>MGv6C-1.0</small>	32% Partial Support	IPV6-ONLY READINESS Website: X Not Ready DNS: X Not Ready Email: X Not Ready
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IPV4 ADDRESSES 210.48.222.141

Network Information (WHOIS / RDAP)

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

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.
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: google._domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

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

Audit Trail & Evidence Record

Verification ID	35b10189-f220-4326-bc83-0075869c92da
Domain	iium.edu.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:10:53 MYT
Finished	07 Mar 2026, 01:11:15 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/35b10189-f220-4326-bc83-0075869c92da

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	c9eb3197dab692f034231c4e4b3455671688faded53c8a53ee7d9ec0d8b7ccc8
http_headers	19130401eb8055150dddf68b91f713e0f78e4c18843f3b0f39eaa500137db0
dns_responses	f947626a39befdc5f2e47ea318e6bb2d473a24bce62b67d2d69116196ef2f02b
tls_handshake	a42d3e9d97322717966c00ee9d04ec888fdeb0bbff7786bebd531b3f4b31746e
connectivity_log	9e0b2ee98739ac5568aa02ca6b16b3e9182514e970a7cd3ca7a01dd4fc17d4fd
dns_resolution_times	54a8003bf3708a355bc23d1a6c24112bb17ffab89f56081ac65c58a9d40fe64a

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	8.66	17.87	7	16.07	-1.7
Google	IPv4	15.07	23.85	28.22	30.01	+13.2
Google	IPv6	18.81	20.74	19	24.45	+0.2
Cloudflare	IPv4	9.73	19.26	8.88	10.05	-0.9
Cloudflare	IPv6	18.04	18.1	7.98	15.02	-10.1

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 40888
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
iiu.edu.my. 3600 IN A 210.48.222.141
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 54374
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
edu.my. 1779 IN SOA b.nic.my. hostmaster.nic.my. 2026018482 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 52025
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
iiu.edu.my. 3600 IN MX 10 alt4.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 5 alt1.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 10 alt3.aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 1 aspmx.l.google.com.
iiu.edu.my. 3600 IN MX 5 alt2.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14031
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; 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: 41599
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
iiu.edu.my. 3600 IN TXT "v=spf1 include:_spf.google.com ~all"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 65203
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
iiu.edu.my. 1800 IN SOA adnin.iiu.edu.my. hostmaster.iiu.edu.my. 2026022700 3600 3600 60480 3600
```

RRSIG

```
adnin.iiu.edu.my. hostmaster.iiu.edu.my. 2026022700 3600 3600 60480 3600
```

DNSKEY

```
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 39769
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
iiu.edu.my. 1800 IN SOA admin.iiu.edu.my. hostmaster.iium.edu.my. 2026022700 3600 3600 60480 3600
```

DNSSEC_VALIDATION

```
; unsigned answer
iiu.edu.my. 3600 IN SOA admin.iiu.edu.my. hostmaster.iium.edu.my. 2026022700 3600 3600 60480 3600
```



```
-----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 2858 bytes and written 406 bytes
Verification error: unable to verify the first certificate
---
New, TLSv1.2, Cipher is ECDHE-ECDSA-AES256-GCM-SHA384
Server public key is 256 bit
Secure Renegotiation IS supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
  Protocol : TLSv1.2
  Cipher   : ECDHE-ECDSA-AES256-GCM-SHA384
  Session-ID: 5BCFEF3CB337E5AF73A57AAA1E5873925F40D854345B2CBF50ED1154D1ACA87
  Session-ID-ctx:
  Master-Key: CC745258F647660B39041552013546A1E3C734812267746C2A7DFB5CB9BF7DEFDE2F49AA5FB09D5A2BC44D79FD353C
  PSK identity: None
```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	301
Connected IP	210.48.222.141
Connect Time	27.54 ms
TTFB	98.07 ms
Total Time	98.2 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, 06 Mar 2026 09:13:05 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=678B2867388B4F419B52BE8B32EAEDD;Expires=Sat, 06 Mar 2027 09:11:15 GMT;Path=/;HttpOnly",
  "14": "HTTP/1.1 302 Found",
  "15": "Server: nginx/1.10.2",
  "16": "Date: Fri, 06 Mar 2026 09:13:05 GMT",
  "17": "Content-Type: text/html; charset=UTF-8",
  "18": "Connection: keep-alive",
  "19": "Location: https://iiu.edu.my/v2",
  "20": "Set-Cookie: cookiesession1=678B2867FD732F1C09ECE30EA52F24DA;Expires=Sat, 06 Mar 2027 09:11:15 GMT;Path=/;HttpOnly",
  "22": "HTTP/1.1 301 Moved Permanently",
  "23": "Server: nginx/1.10.2",
  "24": "Date: Fri, 06 Mar 2026 09:13:05 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	16.23 ms
TTFB	90.31 ms
Total Time	90.41 ms
Error	Maximum (3) redirects followed

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx/1.10.2",
  "2": "Date: Fri, 06 Mar 2026 09:13:05 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=678B2867E8CED79E824AF3B87CD21C28;Expires=Sat, 06 Mar 2027 09:11:15 GMT;Path=/;HttpOnly",
  "9": "HTTP/1.1 302 Found",
  "10": "Server: nginx/1.10.2",
  "11": "Date: Fri, 06 Mar 2026 09:13:05 GMT",
  "12": "Content-Type: text/html; charset=UTF-8",
  "13": "Connection: keep-alive",
  "14": "Location: https://iiu.edu.my/v2",
  "15": "Set-Cookie: cookiesession1=678B2867A5393F15A829B0974E2BE258;Expires=Sat, 06 Mar 2027 09:11:15 GMT;Path=/;HttpOnly",
  "17": "HTTP/1.1 301 Moved Permanently",
  "18": "Server: nginx/1.10.2",
  "19": "Date: Fri, 06 Mar 2026 09:13:05 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, 06 Mar 2026 09:13:05 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 0.008081 0.016432
TCP Connect IPv4 → port 443	000 0.008015 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
    
```