


# IPv6 Readiness Report

ambilan.mypolycc.edu.my — ambilan.mypolycc.edu.my

Category: Education • Generated: 20 Apr 2026, 21:26 MYT • Last Checked: 07 Mar 2026, 01:13 MYT • Verification ID: df18b44a-31b6-4531-b64e-6f3b053325be

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

Audit trail: <https://ipv6.my6.my/audit/df18b44a-31b6-4531-b64e-6f3b053325be>

 <b>Non-Compliant</b> <small>MGv6C-1.0</small>	<b>15%</b> <b>No IPv6 Support</b>	<b>IPv6-ONLY READINESS</b> Website: <b>X Not Ready</b> DNS: <b>X Not Ready</b> Email: <b>X Not Ready</b>
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<b>IPv4 ADDRESSES</b> 103.42.206.181
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## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	MAMPU_PDSA2
Country	MY
ASN	AS141201
ASN Name	JDN-AS-MY Jabatan Digital Negara JDN, MY
Network (CIDR)	103.42.206.248/30

Web Services (35%) <span style="float: right;">0 / 8</span>			
#	CHECK	RESULT	DETAIL
1	<b>AAAA Record</b>	<b>FAIL</b>	No AAAA record found in DNS.
2	<b>Globally Routable IPv6</b>	<b>FAIL</b>	IPv6 address is not globally routable.
3	<b>HTTP over IPv6</b>	<b>FAIL</b>	HTTP is not accessible over IPv6.
4	<b>HTTPS over IPv6</b>	<b>FAIL</b>	HTTPS is not accessible over IPv6.
5	<b>IPv6-Only Reachability</b>	<b>FAIL</b>	Site is not reachable when limited to IPv6-only.
6	<b>TLS Certificate Valid (IPv6)</b>	<b>FAIL</b>	TLS certificate is invalid, expired, or hostname mismatch over IPv6.
7	<b>Dual-Stack (IPv4 + IPv6)</b>	<b>FAIL</b>	Domain is IPv6-only or IPv4-only.
8	<b>HTTP/3 (QUIC)</b>	<b>FAIL</b>	No HTTP/3 support detected.

DNS & DNSSEC (25%) <span style="float: right;">0 / 5</span>			
#	CHECK	RESULT	DETAIL
1	<b>NS Has AAAA Record</b>	<b>FAIL</b>	No nameserver has an AAAA record.
2	<b>NS Reachable via IPv6</b>	<b>FAIL</b>	No nameserver is reachable over IPv6.
3	<b>NS Answers Queries via IPv6</b>	<b>FAIL</b>	Nameserver does not answer queries over IPv6.
4	<b>DNSSEC Validated</b>	<b>FAIL</b>	DNSSEC validation failed or zone is unsigned.
5	<b>Reverse DNS (PTR)</b>	<b>FAIL</b>	No PTR record found.
6	<b>DS Record at Parent</b>	<b>FAIL</b>	No DS record at parent.
7	<b>RRSIG Valid</b>	<b>FAIL</b>	No valid RRSIG found.
8	<b>Signing Algorithm</b>	<b>INFO</b>	No DNSKEY record found.

Email Services (25%)				0 / 6
#	CHECK	RESULT	DETAIL	
1	<b>MX Record Exists</b>	<b>FAIL</b>	No MX record found in DNS.	
2	<b>MX Server Has IPv6</b>	<b>FAIL</b>	MX server has no IPv6 address.	
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>FAIL</b>	No SPF record found.	
6	<b>DKIM Selector</b>	<b>INFO</b>	No common DKIM selector found.	
7	<b>DMARC Record</b>	<b>FAIL</b>	No DMARC record found.	

IPv4 Baseline (15%)				3 / 3
#	CHECK	RESULT	DETAIL	
1	<b>A Record</b>	<b>PASS</b>	103.42.206.181	
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 54ms TTFB.	
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 15ms TTFB.	

### Audit Trail & Evidence Record

Verification ID	df18b44a-31b6-4531-b64e-6f3b053325be
Domain	ambilan.mypolycc.edu.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:13:20 MYT
Finished	07 Mar 2026, 01:13:23 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/df18b44a-31b6-4531-b64e-6f3b053325be

### Integrity Verification

<span style="color: green;">✓ INTEGRITY VERIFIED</span>	
Algorithm	hmac-sha256-v1
Root Hash	d50af3b7f9c072333c88d62427ab2c5cf046d966f1783cbd53fe5392a1e062e1
http_headers	39f887d451f6ac2b584df81fa25d30deb5b6a0229f3a0cf5b557a09ef5328f4
dns_responses	257e74ba378fdd80607c24015f0a9a74dc385f4b637e6efbee6a7bfc6a8b337a
tls_handshake	0137cb0343437ab2db58ab3936b04a484d8d88ba96532c38d031377dacc3fc43
connectivity_log	70686dfe94930a5651a10a916e813631b1ecbb2ad674e239d3153476527813ea
dns_resolution_times	18e97c07862337cb2c0eb61df30e4dd0f4c34d59debe6eed9b061e1baeb028a7

### 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	16.9	17.81	7.95	17.99	-9
Google	IPv4	13.92	34.3	37.21	42.86	+23.3
Google	IPv6	24.99	37.4	29.03	33.12	+4
Cloudflare	IPv4	20.29	20.62	21.11	21.93	+0.8
Cloudflare	IPv6	8.91	31.35	29.57	36	+20.7



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 58832
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ambilan.mypolycc.edu.my. 12298 IN A 103.42.206.181
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 33349
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 31303
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 12319
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44874
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 19532
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

### RRSIG

### DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63336
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mypolycc.edu.my. 1800 IN SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```

**DNSSEC\_VALIDATION**

```
;; resolution failed: ncache nxrrset
; negative response, unsigned answer
; ambilan.mypolycc.edu.my. 1800 IN \-SOA; -NXRRSET
; mypolycc.edu.my. SOA ns1.mypolycc.edu.my. admin.dnsvault.net. 2601230005 10800 3600 604800 86400
```





```
EdSIhIioU4r7rd/9c446ZwTbw1MUcBQJfMPg+NccmBqixD7b6QDjynCy8SIwIVbb
0615XoFYC20UgDX1b10d65pHBf9ZjQCxQnQmJYaumxtf4z1s4dfjGRzNpZ5eWL0
6r/4ngGPoJVpjemEuunl1Iq423g7mNA2eymw0LIYkN5S0wCuaiFIFJ6GlazhgDEw
fpolu4usBC0mmQDo8dIm7A9+04orkjgTHY+GzYZSR+Y0fFukAj6KYXwidlNaLFMz
hriSqHKvoflShx8xpfywgVcvzft03PYkz6fiNJBonf6q8amaEsybwMbDqKwIX7e
SPY=
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = PUTRAJAYA, L = PUTRAJAYA, O = JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI, CN = *.mypolycc.edu.my
issuer=C = BE, O = GlobalSign nv-sa, CN = GlobalSign RSA OV SSL CA 2018
---
No client certificate CA names sent
Peer signing digest: SHA256
Peer signature type: RSA-PSS
Server Temp Key: X25519, 253 bits
---
SSL handshake has read 3322 bytes and written 389 bytes
Verification: OK
---
New, TLSv1.3, Cipher is TLS_AES_128_GCM_SHA256
Server public key is 2048 bit
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
Early data was not sent
```

## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	103.42.206.181
Connect Time	19.64 ms
TTFB	55.4 ms
Total Time	55.46 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 302 Found",
  "1": "Cache-Control: no-cache",
  "2": "Content-length: 0",
  "3": "Location: https://ambilan.mypolycc.edu.my/",
  "5": "HTTP/1.1 200 OK",
  "6": "Content-Length: 541",
  "7": "Content-Type: text/html",
  "8": "Last-Modified: Sat, 16 Dec 2023 15:55:01 GMT",
  "9": "Accept-Ranges: bytes",
  "10": "ETag: \"70a7533a3830da1:0\"",
  "11": "Server: Microsoft-IIS/10.0",
  "12": "X-Powered-By: ASP.NET",
  "13": "Date: Fri, 06 Mar 2026 09:11:22 GMT"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.42.206.181
Connect Time	4.26 ms
TTFB	18.21 ms
Total Time	18.22 ms

#### Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Content-Length: 541",
  "Content-Type: text/html",
  "Last-Modified: Sat, 16 Dec 2023 15:55:01 GMT",
  "Accept-Ranges: bytes",
  "ETag: \"70a7533a3830da1:0\"",
  "Server: Microsoft-IIS/10.0",
  "X-Powered-By: ASP.NET",
  "Date: Fri, 06 Mar 2026 09:11:22 GMT"
]
```

## Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	302 0.009461 0.020210
TCP Connect IPv4 → port 443	200 0.003634 0.022340

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**Test Node Network Evidence**

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<b>Node Profile</b>	dual stack
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**Egress Connectivity**

<b>IPv4 Egress</b>	76.13.221.142
<b>IPv6 Egress</b>	2a02:4780:5e:2789::1

**Sysctl IPv6 Flags**

<b>net.ipv6.conf.all.disable_ipv6</b>	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
```