

# IPv6 Readiness Report

sunway.edu.my — sunway.edu.my



Scan to verify

Category: Education • Generated: 04 Jul 2026, 22:12 MYT • Last Checked: 04 Jul 2026, 03:50 MYT • Verification ID: b4a514ff-0246-4f27-8b3b-ad1b13187ea7

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

Audit trail: <https://ipv6.my6.my/audit/b4a514ff-0246-4f27-8b3b-ad1b13187ea7>

<p><b>X</b></p> <p><b>Non-Compliant</b></p> <p>MGv6C-1.0</p>	<p><b>47%</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>✓ Ready</b></p> <p>Email: <b>X Not Ready</b></p>
--	---	--

IPv4 ADDRESSES
113.23.129.48
182.173.73.176

## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	SUNWAY-UNIVERSITY
Country	MY
ASN	AS38182
ASN Name	EXTREMEBB-AS-MY - Extreme Broadband - Total Broadband Experience, MY
Network (CIDR)	113.23.129.0/24

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.	

#	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: selector1_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>	113.23.129.48, 182.173.73.176
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 248ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 262ms TTFB.

### Audit Trail & Evidence Record

Verification ID	b4a514ff-0246-4f27-8b3b-ad1b13187ea7
Domain	sunway.edu.my
Check Mode	Manual
Status	Completed
Started	04 Jul 2026, 03:49:51 MYT
Finished	04 Jul 2026, 03:50:15 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/b4a514ff-0246-4f27-8b3b-ad1b13187ea7

### Integrity Verification

✓ <b>INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	fbf8db69b6921d33cf00407652b98892e4c3e3f6dcde9d2e49d0e3001b2a0f87
http_headers	e90be218ce11406deddec1f22b11d14d32c1cd714b9844d3fc919f19e7497e11
dns_responses	a8b9a37e8cf2f265f8003f7d97c6881594e438df3411420a7d74c89f11c65705
tls_handshake	124d9e729b27f18bbe950c09699f304bcf2d545e4004f1ecb6664a4177de7b44
connectivity_log	a1499a9851e7d64b636ee81c655c9b44ffc9799ef807649d8b80bdb9e897c92c
dns_resolution_times	ce31de2b1d31e35b2eb2221689944cfac44d351b3b7d9d60984df873f1a759fa

### 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	8.3.32
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	9.79	20.09	18.95	21.29	+9.2
Google	IPv4	26.97	27.96	27.93	31.23	+1
Google	IPv6	29.03	32.43	20.76	30.19	-8.3
Cloudflare	IPv4	18.97	19.93	20.11	20.15	+1.1
Cloudflare	IPv6	10.44	33.81	10.22	22.71	-0.2



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14588
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
sunway.edu.my. 3600 IN A 113.23.129.48
sunway.edu.my. 3600 IN A 182.173.73.176
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18573
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
edu.my. 2986 IN SOA e.nic.my. hostmaster.nic.my. 2026052757 1800 900 604800 3600
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 23634
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
sunway.edu.my. 3600 IN MX 0 sunway-edu-my.mail.protection.outlook.com.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 37157
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
sunway.edu.my. 3600 IN NS dns1.cloudns.net.
sunway.edu.my. 3600 IN NS dns5.cloudns.net.
sunway.edu.my. 3600 IN NS dns6.cloudns.net.
sunway.edu.my. 3600 IN NS dns2.cloudns.net.
```

### TXT

```
;; Truncated, retrying in TCP mode.
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25669
;; flags: qr rd ra; QUERY: 1, ANSWER: 18, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
sunway.edu.my. 3600 IN TXT "google-gws-recovery-domain-verification=70410564"
sunway.edu.my. 3600 IN TXT "MS=ms92449402"
sunway.edu.my. 3600 IN TXT "brevo-code:b1414e0a234265a2faa294058248ae06"
sunway.edu.my. 3600 IN TXT "brevo-code:a17dd4153ca0e51fe0ab834bd5a763da"
sunway.edu.my. 3600 IN TXT "MS=ms55710812"
sunway.edu.my. 3600 IN TXT "google-site-verification=bkHdhB4XEiKzQSIkTBc0jQBw9BUCfChkVvAgaxCWTvo"
sunway.edu.my. 3600 IN TXT "HSL7JLYJ8LT29B7AKT5638I0WGTVHICNZHHEQNOJ"
sunway.edu.my. 3600 IN TXT "_ssyfyLvhgohswzL7n1zuldfrc38v5o8"
sunway.edu.my. 3600 IN TXT "autodesk-domain-verification=ui0eptc-qfnQkqP0pbHD"
sunway.edu.my. 3600 IN TXT "_my73mbwagkd4438v3adnsiw8l9l6fok"
sunway.edu.my. 3600 IN TXT "trend-micro-v1-domain-verification.459af999d6f64208f72446737898a924=ccf12b89-7d59-4689-9642-52353accd377"
sunway.edu.my. 3600 IN TXT "google-gws-recovery-domain-verification=70292276"
sunway.edu.my. 3600 IN TXT "_w7yvirupu4iqemnk0yj1zv6kqlktbz"
sunway.edu.my. 3600 IN TXT "adobe-idp-site-verification=2495a19aec5048a1446029a0086c3b9d9c4223dcb8b2d12f1e92c0a4927140aa"
sunway.edu.my. 3600 IN TXT "v=spf1 include:_spf.mlsend.com include:amazonses.com include:spf.au-1.a.mimecastprotect.com include:_spf.salesforce.com include:spf.protection.outlook.com ip4:182.173.73.141 ip4:113.23.129.24 -all"
sunway.edu.my. 3600 IN TXT "hvmrL2hclghwmbjp3tngq6k65r42rw1f"
sunway.edu.my. 3600 IN TXT "google-site-verification=vsx09upGX1EP8iPXV777X7vTjxK1ccApeh8rH0vBmUM"
```

```
sunway.edu.my. 3600 IN TXT "MS=ms46718954"
```

#### AAAA

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 27283
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
sunway.edu.my. 3579 IN SOA ns1.cloudns.net. support.cloudns.net. 2026070201 7200 1800 1209600 3600
```

#### RRSIG

```
ns1.cloudns.net. support.cloudns.net. 2026070201 7200 1800 1209600 3600
```

#### DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 36975
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
sunway.edu.my. 3579 IN SOA ns1.cloudns.net. support.cloudns.net. 2026070201 7200 1800 1209600 3600
```

#### DNSSEC\_VALIDATION

```
; unsigned answer
sunway.edu.my. 3579 IN SOA ns1.cloudns.net. support.cloudns.net. 2026070201 7200 1800 1209600 3600
```





```
A1UdIwQYMBaAFE4iVCAYLebjuYP+Vq5Eu0GF485MA4GA1UdDwEB/wQEAWIBhjAd
BgNVHSUEFjAUBggrBgEFBQcDAQYIKwYBBQUHAWIwdgYIKwYBBQUHAQEeAjBoMCQG
CCsGAQUFBzABhhodHRwOi8vb2NzcC5kaWdpY2Vydc5jb20wQAYIKwYBBQUHMAKG
NGh0dHA6Ly9jYWNlcnRzLmRwZ2ljZXJ0LmNvbS59EaWdpQ2VydEdsb2JhbFJvb3RH
Mi5jcnQwQgYDR0fBDswOTA3oDwGm4YxaHR0cDovL2NybdMuZGlnawNlcn0uY29t
L0RpZ2LDZXJ0R2xvYmFsUm9vdEcyLmNybdA9BgNVHSAENjA0MAsGCWCGSAGG/WwC
ATAHBgVngQwBATAIBgZngQwBAGewCAYGZ4EMAQICMAgGBmeBDAECAzANBgkqhkiG
9w0BAQsFAA0CAQEAKPFwyyiXaZd8dP3A+iZ7U6utzWX9upwGnIrXWk0H7U1MVL+t
wcW1BSAuWdH/SvWgKtiwla3JLko716f2b4gp/DA/JIS7w7d7kwcsr4drdjPtAFVS
slme5LnQ89/nD/7d+MS5EHKBCQRfz5eelJJljs+aWNJXMX43AYGyZm0pGrFmCW3R
bpD0ufovARTFXFzkAdl9h6g4U5+LXUZtXMYnhIHUfoym05t558aI7Dd8KvwwVVo4
chDYABPPTHpbqjclqCmBaZx2vN4Ye5DUys/vZwP9BFohFrH/6j/f3IL16/RZkiMN
JCqVJUzKoZhm1Lesh3Sz8W2jmdv51b2EQJ8HmA==
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = Selangor, L = Subang Jaya, O = Sunway University SDN. BHD., CN = *.sunway.edu.my
issuer=C = US, O = DigiCert Inc, CN = DigiCert Global G2 TLS RSA SHA256 2020 CA1
---
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 3746 bytes and written 395 bytes
Verification: OK
---
```

## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	182.173.73.176
Connect Time	22.52 ms
TTFB	243.29 ms
Total Time	243.42 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Content-Type: text/html",
  "2": "Content-length: 0",
  "3": "Connection: Close",
  "4": "Location: https://sunway.edu.my:443/",
  "6": "HTTP/1.1 200 OK",
  "7": "Date: Fri, 26 Jun 2026 08:06:02 GMT",
  "8": "Cache-Control: must-revalidate, no-cache, private",
  "9": "X-Drupal-Dynamic-Cache: MISS",
  "10": "Content-language: en",
  "11": "X-Content-Type-Options: nosniff",
  "12": "X-Frame-Options: DENY",
  "13": "Expires: Sun, 19 Nov 1978 05:00:00 GMT",
  "14": "X-Generator: Drupal 10 (https://www.drupal.org)",
  "15": "Content-Security-Policy: report-uri /report-csp-violation",
  "16": "Strict-Transport-Security: max-age=31536000",
  "17": "X-Drupal-Cache: HIT",
  "18": "Content-Type: text/html; charset=UTF-8",
  "19": "Transfer-Encoding: chunked",
  "20": "Strict-Transport-Security: max-age=31536000"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	113.23.129.48
Connect Time	17.76 ms
TTFB	246.52 ms
Total Time	246.57 ms

#### Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 26 Jun 2026 08:06:02 GMT",
  "Cache-Control: must-revalidate, no-cache, private",
  "X-Drupal-Dynamic-Cache: MISS",
  "Content-language: en",
  "X-Content-Type-Options: nosniff",
  "X-Frame-Options: DENY",
  "Expires: Sun, 19 Nov 1978 05:00:00 GMT",
  "X-Generator: Drupal 10 (https://www.drupal.org)",
  "Content-Security-Policy: report-uri /report-csp-violation",
  "Strict-Transport-Security: max-age=31536000",
  "X-Drupal-Cache: HIT",
  "Content-Type: text/html; charset=UTF-8",
  "Transfer-Encoding: chunked",
  "Strict-Transport-Security: max-age=31536000"
]
```

## Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.017146 0.037937
TCP Connect IPv4 → port 443	200 0.011568 0.232098

**Test Node Network Evidence**

Node Profile	dual stack
--------------	------------

**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
10.6.101.0/24 dev wg0 scope link
10.6.102.0/24 dev wg0 scope link
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
172.29.0.0/24 dev wg0 scope link
```