


IPv6 Readiness Report

uniswa.edu.my — uniswa.edu.my

Category: Education • Generated: 21 Apr 2026, 18:00 MYT • Last Checked: 07 Mar 2026, 01:12 MYT • Verification ID: 2d625e2b-43f8-4ae1-8060-370cd2df3f0a
Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>
Audit trail: <https://ipv6.my6.my/audit/2d625e2b-43f8-4ae1-8060-370cd2df3f0a>

 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
103.16.182.3
103.16.183.3

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	Universiti Sultan Zainal Abidin
Country	MY
ASN	AS58812
ASN Name	USZA-AS Information Technology Center, MY
Network (CIDR)	103.16.182.0/23

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	103.16.182.3, 103.16.183.3
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 367ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 336ms TTFB.

Audit Trail & Evidence Record

Verification ID	2d625e2b-43f8-4ae1-8060-370cd2df3f0a
Domain	uniswa.edu.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:11:38 MYT
Finished	07 Mar 2026, 01:12:03 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/2d625e2b-43f8-4ae1-8060-370cd2df3f0a

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	723cdf281932491eae84e522b658afe6dcaaaeadd2eb9eb6187329575eb9679a
http_headers	77fb398ff092a3f662d5c97524e1941c2d5ce86888e165dbfb7d307de1bcde56
dns_responses	347de9c260a391e7c2e41ac683c97e14858d266976daea128254efb0342982ed
tls_handshake	f45b89b5e418197aa2cff858347f7736fe8f23a3c9daeba3694014e37ec23750
connectivity_log	1e1dc2ccb49d3945aef05c5d3dd1f19c978286452ad17eb15cf3f7e4d63bfadb
dns_resolution_times	4b3c6df9b4365327d93e7f0ec231258a33f62c79eece67e64b9f0f5795bec561

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	17.81	18.9	7.84	9.08	-10
Google	IPv4	16.57	48.67	45.93	295.64	+29.4
Google	IPv6	46.24	55.86	55.45	63.93	+9.2
Cloudflare	IPv4	9.82	18.76	9.01	19.15	-0.8
Cloudflare	IPv6	53.84	87.8	23.69	48.55	-30.2

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 13727
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
uniswa.edu.my. 300 IN A 103.16.182.3
uniswa.edu.my. 300 IN A 103.16.183.3
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 37859
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

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

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 26588
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
uniswa.edu.my. 300 IN MX 10 ASPMX2.GOOGLEMAIL.COM.
uniswa.edu.my. 300 IN MX 1 ASPMX.L.GOOGLE.COM.
uniswa.edu.my. 300 IN MX 5 ALT2.ASPMX.L.GOOGLE.COM.
uniswa.edu.my. 300 IN MX 5 ALT1.ASPMX.L.GOOGLE.COM.
uniswa.edu.my. 300 IN MX 10 ASPMX3.GOOGLEMAIL.COM.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 16311
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
uniswa.edu.my. 300 IN NS ns1.uniswa.edu.my.
uniswa.edu.my. 300 IN NS ns2.uniswa.edu.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 30104
;; flags: qr rd ra; QUERY: 1, ANSWER: 6, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
uniswa.edu.my. 300 IN TXT "cisco-ci-domain-verification=a5810c853568e2fcf687875b70a2045609525e0b924431f257146218130d649"
uniswa.edu.my. 300 IN TXT "v=spf1 include:_spf.google.com ~all"
uniswa.edu.my. 300 IN TXT "Universiti Sultan Zainal Abidin Malaysia, please visit www.uniswa.edu.my for more info"
uniswa.edu.my. 300 IN TXT "google-site-verification=JQLLbSHBLcbyw_hQLI08ERmqJ_kLViwjxYk2zEQcV_0"
uniswa.edu.my. 300 IN TXT "MS=B9B230EA6BFC636EEB6F130EDCE497B98D26BA84"
uniswa.edu.my. 300 IN TXT "google-site-verification=JyE3EtNw--rZ1dZT3FNnXynt_aq_bRwTOWlfmmv8fHY"
```

AAAA

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 8299
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uniswa.edu.my.[]300[]IN[]SOA[]ns1.uniswa.edu.my. admin.uniswa.edu.my. 2026013101 10800 3600 1209600 300
```

RRSIG

```
ns1.uniswa.edu.my. admin.uniswa.edu.my. 2026013101 10800 3600 1209600 300
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 482
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
uniswa.edu.my.[]300[]IN[]SOA[]ns1.uniswa.edu.my. admin.uniswa.edu.my. 2026013101 10800 3600 1209600 300
```

DNSSEC_VALIDATION

```
; unsigned answer
uniswa.edu.my.[]300[]IN[]SOA[]ns1.uniswa.edu.my. admin.uniswa.edu.my. 2026013101 10800 3600 1209600 300
```



```

hhddoHRw0i8vb2NzcC5zZWNoaWdvLmNvbTApBgNVHREEIjAggg8qLnVuaXN6Y5S1
ZHUubXmCDXVuaXN6Y5S1ZHUubXkwggGPBgorBgEEAdZ5AgQCBIIbfwSCAXsBeQB2
AGBMmq96f3dfAdQG/JINyJnrCxx9+MLSG/r6F3c7l4vJAAABm4Kg54QAAAQDAEcw
RQIGfFBSKFW/NZKBTijYSeL7yfpGAz/geW1xPt8ja22nXY4CIQCGkfJGwZBNoCqo
gc2n0tEwrkZ+80Le26QfKhaGBYAqLQB/AI7KRwus3mrzogatPHqEt0b+H8a/LT4l
5pt05AJI88boAAABm4Kg6SoACAAABQABAlNeBAMASDBGAIEAsNrWji0/VwxDmdvm
/mpkVxtcbr90feofGVdn7HLmM4CIQCFixPzZTLHNo4KhBx4C/fj1pJw4IJc5IuY
eJbu1CIIFwB+AFubD0GLLJZcqJWyKDo3ZBKdugIPdqH0wEI0CgUP05ZAAABm4Kg
6KIAAAABQAABu7XBAMARzBFAiBPVqyMvSiN8sz7rcB5da3X05jt4c69zZ0tQmLU
QYwXSwIhAPY5gjtqFQJAprhh0zayRZI5rcmJ1G1zq6RHpCJ1I0BeMA0GC5qGSIB3
DQEBcUAA4IBgQCGxXb8F/FeYDK1NaS19Kw6Q2JEaEA2g5aoxBuPyZIVrjbaIMSS
RfapvPJFFDHxYezG1VeyMqPBGey3QgmV2T2PG0s7u0xA0ukZee2+DdVmbY3m0N0h
oew40J0mZh4HcdnkiQgELKuXGCEEbJ5FKSvkB1poHMiMS7xG8sjbc9WLee/Z6Pm
Bxnk15I+eggyKyNACDUY6kYaGgo+xed0a1QUdu3SpH8eE0jtQaLPkA2nyhuwhLA
wCP7X/Jar9saSbEejidQDLDLzupCx2zP4TmJiTR45XZzNXuXVgUjwfnV7fzrJ
caVhRoFEiKbA322GmU1N4LFJ63WZaAJ24h5IiP/k6DLie1pakyogadcp51Lq7q0w
se/qxMh5BNq3js0MC2iHGXL9CDT+7k6QSk6d7tr1Y/SZTNpm6FV2E10TpAJYwe
WTPthlfG097R9NhtjKaQwRRYJ4aCUTuDIqWax88iUCha9X9ScwMYDtRhqmauwH
xlslLr9oa0x3cbu=
-----END CERTIFICATE-----
2 s:C = GB, 0 = Sectigo Limited, CN = Sectigo Public Server Authentication CA DV R36
i:C = GB, 0 = Sectigo Limited, CN = Sectigo Public Server Authentication Root R46
a:PKKEY: rsaEncryption, 3072 (bit); sigalg: RSA-SHA384
v:NotBefore: Mar 22 00:00:00 2021 GMT; NotAfter: Mar 21 23:59:59 2036 GMT
-----BEGIN CERTIFICATE-----
MIIGTDCCBDSgAwIBAgIQ0XpmzCdWni4NqofKbqvjSTANBgkqhkiG9w0BAQwFADBf
MQswCQYDVQQGEwJHQjEYMBYGA1UEChMPU2VjdGlnbyBmaW1pdGVkMTYwNAVDVQQD

```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	103.16.182.3
Connect Time	40.98 ms
TTFB	319.64 ms
Total Time	319.81 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 06 Mar 2026 09:12:02 GMT",
  "3": "Content-Type: text/html",
  "4": "Content-Length: 178",
  "5": "Connection: keep-alive",
  "6": "Location: https://www.uniswa.edu.my/",
  "7": "X-Frame-Options: SAMEORIGIN",
  "9": "HTTP/1.1 200 OK",
  "10": "Server: nginx",
  "11": "Date: Fri, 06 Mar 2026 09:12:02 GMT",
  "12": "Content-Type: text/html; charset=UTF-8",
  "13": "Connection: keep-alive",
  "14": "set-cookie: pll_language=en; expires=Sat, 06 Mar 2027 09:12:02 GMT; Max-Age=31536000; path=/; secure; SameSite=Lax",
  "15": "link: <https://www.uniswa.edu.my/wp-json/>; rel=\"https://api.w.org/\"",
  "16": "link: <https://www.uniswa.edu.my/wp-json/wp/v2/pages/51>; rel=\"alternate\"; type=\"application/json\"",
  "17": "link: <https://www.uniswa.edu.my/>; rel=shortlink",
  "18": "x-frame-options: SAMEORIGIN",
  "19": "set-cookie: SERVERID=s1; path=/",
  "20": "Strict-Transport-Security: max-age=15768000; includeSubDomains; preload;",
  "21": "X-Content-Type-Options: nosniff",
  "22": "X-XSS-Protection: 1; mode=block",
  "23": "X-Download-Options: noopen",
  "24": "X-Permitted-Cross-Domain-Policies: none"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.16.183.3
Connect Time	36.14 ms
TTFB	429.51 ms
Total Time	429.6 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 06 Mar 2026 09:12:03 GMT",
  "3": "Content-Type: text/html",
  "4": "Content-Length: 178",
  "5": "Connection: keep-alive",
  "6": "Location: https://www.unisza.edu.my/",
  "8": "HTTP/1.1 200 OK",
  "9": "Server: nginx",
  "10": "Date: Fri, 06 Mar 2026 09:12:03 GMT",
  "11": "Content-Type: text/html; charset=UTF-8",
  "12": "Connection: keep-alive",
  "13": "set-cookie: pll_language=en; expires=Sat, 06 Mar 2027 09:12:03 GMT; Max-Age=31536000; path=/; secure; SameSite=Lax",
  "14": "link: <https://www.unisza.edu.my/wp-json/>; rel=\"https://api.w.org/\"",
  "15": "link: <https://www.unisza.edu.my/wp-json/wp/v2/pages/51>; rel=\"alternate\"; type=\"application/json\"",
  "16": "link: <https://www.unisza.edu.my/>; rel=shortlink",
  "17": "x-frame-options: SAMEORIGIN",
  "18": "set-cookie: SERVERID=s1; path=/",
  "19": "Strict-Transport-Security: max-age=15768000; includeSubDomains; preload;",
  "20": "X-Content-Type-Options: nosniff",
  "21": "X-XSS-Protection: 1; mode=block",
  "22": "X-Download-Options: noopen",
  "23": "X-Permitted-Cross-Domain-Policies: none"
}
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.022780 0.048045
TCP Connect IPv4 → port 443	301 0.017710 0.080004

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