


IPv6 Readiness Report

tm.com.my — tm.com.my

Category: Telco • Generated: 20 Apr 2026, 21:37 MYT • Last Checked: 07 Mar 2026, 01:13 MYT • Verification ID: dbbdce64-fc59-4524-be3d-c222fb27c5df
Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>
Audit trail: <https://ipv6.my6.my/audit/dbbdce64-fc59-4524-be3d-c222fb27c5df>

 Non-Compliant <small>MGv6C-1.0</small>	47% Partial Support	IPV6-ONLY READINESS Website: ✗ Not Ready DNS: ✓ Ready Email: ✗ Not Ready
---	--------------------------------------	---

IPV4 ADDRESSES
45.60.245.95
45.60.243.95

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	Incapsula Inc
Country	US
ASN	AS19551
ASN Name	INCAPSULA - Incapsula Inc, US
Network (CIDR)	45.60.0.0/16

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.
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: selector1._domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	45.60.245.95, 45.60.243.95
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 994ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 374ms TTFB.

Audit Trail & Evidence Record

Verification ID	dbbdce64-fc59-4524-be3d-c222fb27c5df
Domain	tm.com.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:13:24 MYT
Finished	07 Mar 2026, 01:13:50 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/dbbdce64-fc59-4524-be3d-c222fb27c5df

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	b6c795feaea882426e28a1e3002d0f1b7c4bfc582e213ce57345f56c3a0c90ca
http_headers	8f04e0050e7ed649df22467c93bbe6a7cba4c6576cf6816a42625c1fcd15a269
dns_responses	3172cfc4b58dd2c58c64d6c2045faf783eb7dacfc046633aaf3eb6836c17e3fd
tls_handshake	fedb6351c0f0bbf3b0c7aa7cd30ec0e37e5b7461751baa35c927c92359a16f54
connectivity_log	75bb90495b35c4e5ce61a827ed8d8b7580e89fba9a45e6b6b450f9e9e2b9861c
dns_resolution_times	e7ce5ea02285f193b7402d0a61dec9ee6154207a1519312c512cccf7c4e61e27

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	7.45	17.74	7.35	17.75	-0.1
Google	IPv4	22.67	24.2	17.91	26.01	-4.8
Google	IPv6	12.98	19.38	18.51	24.26	+5.5
Cloudflare	IPv4	10.71	20.06	7.97	22.03	-2.7
Cloudflare	IPv6	28.96	34.17	18.89	27.03	-10.1

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 53818
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
tm.com.my. 0023790IN A 45.60.245.95
tm.com.my. 0023790IN A 45.60.243.95
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 46991
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
com.my. 00018000IN SOA 0b.nic.my. hostmaster.nic.my. 2026018482 1800 900 604800 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 33325
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
tm.com.my. 002950IN MX 0 tm-com-my.mail.protection.outlook.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39981
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
tm.com.my. 003130IN NS ns1.a1.impervasecuredns.net.
tm.com.my. 003130IN NS ns1.a0.impervasecuredns.net.
```

TXT

```
;; Truncated, retrying in TCP mode.
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 29290
;; flags: qr rd ra; QUERY: 1, ANSWER: 14, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
tm.com.my. 0017520IN TXT "Dynatrace-site-verification=5a22bfb7-da1d-4dba-932c-532f758f3d62_5lpgn1qk9gab4ej8gm5egvgrfk"
tm.com.my. 0017520IN TXT "wso2-domain-verification:UGjWnCSE1L3vi!IB%SH"
tm.com.my. 0017520IN TXT "_globalsign-domain-verification=6sxj0cQyzKTfb6JyUJ7g6DAfdvBX6UnXjYc5MgYvN0"
tm.com.my. 0017520IN TXT "_globalsign-domain-verification=ssIAffIwD-vhiqu-nBKdrphWpIvLbmYrKLZiadTLin"
tm.com.my. 0017520IN TXT "pardot974753=c759fc3f459803b9ed2f894c0a6670da63ec180c68ffb73c41e19e62d7f04fa3"
tm.com.my. 0017520IN TXT "google-gws-recovery-domain-verification=63950237"
tm.com.my. 0017520IN TXT "N9qcNsBnZZ7a+N/603ss+q7/T67ZBfctUR6JK845Iuh2m296Ag65MJFJsMrtkMP9c5LP0HAMWYAxThbjU7s4jQ==" ""
tm.com.my. 0017520IN TXT "_mlq09g86tktdumfnnszlik5bh7yclhh"
tm.com.my. 0017520IN TXT "google-site-verification=IxPhEBLgrUUmmbfLM_HhaIDnmTKwBBkyGhRyahWig2s"
tm.com.my. 0017520IN TXT "v=spf1 mx a ip4:58.27.27/32 ip4:58.26.47.33/32 ip4:58.26.47.41/32 ip4:58.26.47.39/32 ip4:58.27.27.10/32 ip4:58.27.27.8/32 ip4:49.236.195.140/32 ip4:202.188.145.10/32 ip4:202.188.145.11/32 ip4:202.188.145.12/32 ip4:58.27.122.10/32 ip4:58.27.122.11/32 ip4" ":58.27.122.12/32 ip4:35.214.19.57 ip4:35.214.38.249 ip4:35.214.97.123" " ip4:157.119.111.130 ip4:157.119.108.26 ip4:35.224.181.242/32 ip4:104.154.135.219" "/32 ip4:130.211.155.13/32 ip4:130.211.161.53/32 ip4:35.202.123.80/32 ip4:35.225.127.100/32 ip4:202.188.145.6/32 ip4:58.27.122.7/32 include:aspmx.pardot.com include:spf.protection.outlook.com -all"
tm.com.my. 0017520IN TXT "duo_sso_verification=UD34ryS98rcFDedGX0g0cmRfwTgmFXuwigIyssfBEzTFyq5BqV5K33B064eaQMR"
tm.com.my. 0017520IN TXT "globalsign-domain-verification=C861AE524ACC7D4A916E6387D34D209"
tm.com.my. 0017520IN TXT "ciscocidomainverification=63e9147605a8ea67068b37c3a802e723bb6abdde3c92f55095c1f3801bc30d45"
tm.com.my. 0017520IN TXT "_vr7ujha7e28bd7okrjrcxvcd672wkc8"
```

AAAA

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 37801
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
tm.com.my. 538 IN SOA ns1.a0.impervasecuredns.net. tmdnsadmin.tm.com.my. 2013025367 3600 600 604800 600
```

RRSIG

```
ns1.a0.impervasecuredns.net. tmdnsadmin.tm.com.my. 2013025367 3600 600 604800 600
```

DNSKEY

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 49164
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
tm.com.my. 600 IN SOA ns1.a0.impervasecuredns.net. tmdnsadmin.tm.com.my. 2013025367 3600 600 604800 600
```

DNSSEC_VALIDATION

```
; unsigned answer
tm.com.my. 600 IN SOA ns1.a0.impervasecuredns.net. tmdnsadmin.tm.com.my. 2013025367 3600 600 604800 600
```



```
BggrBgEFBQCDAQYIKwYBBQUHAAwIwEgYDVDR0TAQH/BAGwBgEB/wIBADAdBgNVHQ4E
FgQUSE0eMHD23v1UHhI6HeD3Ycv7IMcWwYDVR0jBBgwFoAUj/BLf6guRSSuTVD6
Y5qL3uLdG7wwewYIKwYBBQUHAQEebzBtMC4GCCsGAQUFBzABhiJodHRwOi8vb2Nz
cdIuZ2xvYmFsY2lubi5jb20vc9vdHIzMDsGCCsGAQUFBzAChi9odHRwOi8vc2Vj
dXJlLmdsb2JhbHNpZ24uY29tL2NhY2VydC9yb290LXIzLmNydA2BgNVHR8ELzAt
MCugKAAnhiVodHRwOi8vY3J3sLmdsb2JhbHNpZ24uY29tL3Jvb3QtcjMuY3J3sMCEG
A1UdIAQAMBgwCAYGZ4EMAQIBMAwGCisGAQBoDIIKAQMwDQYJKoZIhvcNAQELBQAD
ggEBALJnnt6rIjXwL6+6W0XrYySF91baTVFiFLKG7I8YBEhiLBSYL4juDZcyWtB
Pvw1zHZHYWRC//ruG6diKB/hxeIf0U563a3dP0ct8GGakGL70/nKLeSoEWj nabNO
PeH4brw+ZgbRz7VBPXv+6y+P+1qqwUrvLmgawPRW4HYM065TXnKh7071N/SacDbZ
53J0YTNPy4JLQoK/gqGFmPiHOLblre/F4gbLRnsRmDY60w10Cv+6+a/ktWzmSioK
oeU4gGL5XuXhBJFv8kkJkgLNSotWuE/r/izVYXzcaI6e2hgwnA6AB2e2vCJmS1ow
ZqY63DngXSg4Vs9JR97+KjaDGu0=
-----END CERTIFICATE-----
---
Server certificate
subject=CN = imperva.com
issuer=C = BE, O = GlobalSign nv-sa, CN = GlobalSign Atlas R3 DV TLS CA 2025 Q4
---
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 3699 bytes and written 375 bytes
Verification: OK
---
```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	45.60.243.95
Connect Time	163.91 ms
TTFB	989.95 ms
Total Time	990.07 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Location: https://tm.com.my/",
  "2": "Content-Length: 0",
  "3": "Connection: close",
  "5": "HTTP/2 200",
  "6": "content-type: text/html; charset=UTF-8",
  "7": "server: envoy",
  "8": "date: Fri, 06 Mar 2026 09:13:49 GMT",
  "9": "cache-control: must-revalidate, no-cache, private",
  "10": "content-language: en",
  "11": "x-content-type-options: nosniff",
  "12": "x-frame-options: SAMEORIGIN",
  "13": "expires: Sun, 19 Nov 1978 05:00:00 GMT",
  "14": "content-security-policy: report-uri /report-csp-violation; upgrade-insecure-requests",
  "15": "x-xss-protection: 1",
  "16": "strict-transport-security: max-age=1000",
  "17": "from-origin: same",
  "18": "referrer-policy: no-referrer-when-downgrade",
  "19": "vary: Accept-Encoding",
  "20": "x-cacheable: NO:Not Cacheable",
  "21": "x-varnish: 9019071",
  "22": "age: 0",
  "23": "x-varnish-cache: MISS",
  "24": "x-cache-hits: 0",
  "25": "accept-ranges: bytes",
  "26": "x-envoy-upstream-service-time: 317",
  "27": "set-cookie: visid_incap_2937950=Ry8lj2DQShGjZuz25CA03cmaqmkAAAAAQIPAAAAAABTWT0qHrLo4WyxXkeCxmfa; expires=Fri, 05 Mar 2027 22:30:37 GMT; HttpOnly; path=/; Domain=.tm.com.my",
  "28": "set-cookie: incap_ses_1855_2937950=GcQ2brQ6Xw0fSBsDW0m+Gc2aqmkAAAAA3i7mU+B65ng4JV79xgYb6g==; path=/; Domain=.tm.com.my",
  "29": "x-cdn: Imperva",
  "30": "x-iinfo: 56-244646277-244478274 pNny RT(1772788428975 169) q(0 0 0 0) r(5 5) U6"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	45.60.245.95
Connect Time	2.22 ms
TTFB	327.13 ms
Total Time	327.19 ms

Response Headers:

```
{
  "HTTP/2 200",
  "content-type: text/html; charset=UTF-8",
  "server: envoy",
  "date: Fri, 06 Mar 2026 09:13:50 GMT",
  "cache-control: must-revalidate, no-cache, private",
  "content-language: en",
  "x-content-type-options: nosniff",
  "x-frame-options: SAMEORIGIN",
  "expires: Sun, 19 Nov 1978 05:00:00 GMT",
  "content-security-policy: report-uri /report-csp-violation; upgrade-insecure-requests",
  "x-xss-protection: 1",
  "strict-transport-security: max-age=1000",
  "from-origin: same",
  "referrer-policy: no-referrer-when-downgrade",
  "vary: Accept-Encoding",
  "x-cacheable: NO:Not Cacheable",
  "x-varnish: 15654501",
}
```

```

"age: 0",
"x-varnish-cache: MISS",
"x-cache-hits: 0",
"accept-ranges: bytes",
"x-envoy-upstream-service-time: 308",
"set-cookie: visid_incap_2937950=SKL0JMzmSwK96UfXEZ08M86aqmkAAAAAUIPAAAAABqjZVroNWfdPH9TPp8Yr4d; expires=Fri, 05 Mar 2027 17:34:18 GMT; HttpOnly; path=/; Domain=.tm.com.my",
"set-cookie: incap_ses_1130_2937950=VC29HL3fBxg4yB+/hZGuD86aqmkAAAAA1doyd9j/1dpSgb1VxWcPzg==; path=/; Domain=.tm.com.my",
"x-cdn: Imperava",
"x-iinfo: 7-81811449-81811451 NNNY CT(5 18 0) RT(1772788430173 6) q(0 0 0 -1) r(0 3) U6"
    ]
    
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	301 0.002043 0.004927
TCP Connect IPv4 → port 443	200 0.001936 0.397016

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
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
    
```