

# IPv6 Readiness Report

digital.gov.my — digital.gov.my



Scan to verify

Category: Government • Generated: 04 Jul 2026, 22:39 MYT • Last Checked: 04 Jul 2026, 04:08 MYT • Verification ID: 893ec49f-916e-4d01-9edf-1c63962c2cfd

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

Audit trail: <https://ipv6.my6.my/audit/893ec49f-916e-4d01-9edf-1c63962c2cfd>

<p><b>X</b></p> <p><b>Non-Compliant</b></p> <p>MGv6C-1.0</p>	<p><b>48%</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>
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<p><b>IPv4 ADDRESSES</b></p> <p>43.251.19.58</p>
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## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	MAMPU_PDSA3
Country	MY
ASN	AS141201
ASN Name	JDN-AS-MY - Jabatan Digital Negara (JDN), MY
Network (CIDR)	43.251.19.2/31

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%)				4 / 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	PASS	DNSSEC fully validated.	
5	Reverse DNS (PTR)	FAIL	No PTR record found.	
6	DS Record at Parent	PASS	DS record found at parent zone.	
7	RRSIG Valid	PASS	RRSIG signatures are current and valid.	

#	CHECK	RESULT	DETAIL
8	<b>Signing Algorithm</b>	<b>INFO</b>	RSASHA256

**Email Services** (25%) 3 / 6

#	CHECK	RESULT	DETAIL
1	<b>MX Record Exists</b>	<b>PASS</b>	MX record found.
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>PASS</b>	SPF record found.
6	<b>DKIM Selector</b>	<b>INFO</b>	No common DKIM selector found.
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>	43.251.19.58
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 588ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 519ms TTFB.

### Audit Trail & Evidence Record

Verification ID	893ec49f-916e-4d01-9edf-1c63962c2cfd
Domain	digital.gov.my
Check Mode	Scheduled
Status	Completed
Started	04 Jul 2026, 04:08:01 MYT
Finished	04 Jul 2026, 04:08:11 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/893ec49f-916e-4d01-9edf-1c63962c2cfd

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	2a08ce0279ec7960e689ed6e61d12c6e3fbaf98b9c14180f6e50f77f3e45ef01
http_headers	32248aaf69faed6dc6fd9b0547c9ca1c86fb560f26fcea7e68190aba742f88fa
dns_responses	04e4e1103fe5343543368541fa732dc68929214d24337bdc9065b96f71e4e539
tls_handshake	0a1701759c0e24a46f11c08a2d387f4a833cd7bf5910c44166be4cbf9605b4b1
connectivity_log	ae62cb70801646a27feecfda11d2ddee889a4b35ad413241b5c515b0906551e
dns_resolution_times	b4492a7906f2ea6232bac5da916268f3acc8ea0b3af0beea214a5901ddebbb4d

### 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	10.81	19.88	19.11	19.98	+8.3
Google	IPv4	44.44	49.68	42.97	43.28	-1.5
Google	IPv6	41.29	60.42	34.02	42.26	-7.3
Cloudflare	IPv4	11.85	12.7	25.01	25.72	+13.2
Cloudflare	IPv6	55.04	57.11	10.9	43.26	-44.1



**DNS Evidence**

**A**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14430
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3600 IN A 43.251.19.58
```

**DS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 38871
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3600 IN DS 22676 8 1 D19AA1F1DB491ED43B109680631467B537EC8C99
digital.gov.my. 3600 IN DS 22676 8 2 0B508FDEDB242159A846093DCC8E06655964E16B962C88B371673BEE DEBA5478
```

**MX**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 32653
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 6, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3600 IN MX 5 alt2.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 10 alt4.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 10 alt3.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 5 alt1.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 1 data.dtsa.digital.gov.my.
digital.gov.my. 3600 IN MX 1 aspmx.l.google.com.
```

**NS**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 5443
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3600 IN NS dns2.gitn.net.my.
digital.gov.my. 3600 IN NS dns1.gitn.net.my.
```

**TXT**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 22518
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3600 IN TXT "_globalsign-domain-verification=WjGItkZd3Sui73K8UYbePnrXQvhZt3lmUNukh8EVdy"
digital.gov.my. 3600 IN TXT "google-site-verification=fDA7QRLwHsuNSljGr5wLyMEx5G8rm8A5GjUCz6_5o"
digital.gov.my. 3600 IN TXT "MS=80ECE2CC22F76616C712FF3A85D1977BFBA8256A"
digital.gov.my. 3600 IN TXT "v=spf1 ip4:103.8.147.12/30 ip4:219.92.54.177/32 ip4:103.156.82.32/29 ip4:103.156.83.32/29 include:_spf.google.com ~all"
```

**AAAA**

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63274
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
digital.gov.my. 3600 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026070206 10800 3600 604800 38400
```

RRSIG

```
dns1.gitn.net.my. planning.gitn.com.my. 2026070206 10800 3600 604800 38400
SOA 8 3 3600 20260802182621 20260703172621 41959 digital.gov.my. 1AM4sbSa6v+aiKXr77GUTUjyV/e0rXv8p6xVYwCUPZKDKV4392jJ/brB
eUhoWT47AU1ppyBSyxxmRngJwmALk5usUwNOMdCc9ueS09r0FlLcJWg+ q2BoPqXBaoxyh2vceFvVAwZnpwDT9VbcXJsuH7IYvfK1mRYjWNEl7Xp Wyo=
```

DNSKEY

```
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 49566
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
digital.gov.my. 3597 IN DNSKEY 256 3 8 AwEAAQpV0c+hwRji1u/HKgDvkd+YgYJfcWn9EVIbEFDLkCeDMB0Ua3 nB4qWkt+ShLIUPEY0s5I8EUws6EhC3LAXxnrraMtm7mUCT3/i6craNYI
TqK8Gk0kHkRcGA7gvrJ6x06hsges3wr2mycrt7XI7D30UjgduqqoyVP QZJeesTJ
digital.gov.my. 3597 IN DNSKEY 257 3 8 AwEAAcLbt+PUouRi7PU/eCnSQ0MF9DoFIrcJGPs0yERj4xCDYm2+63V0 VDThXMkRk4C62mKbqIeLCrhcnhRW0iD5lDdMic38ZBqc/plvKrT0nIPW
/SIAZVVX+soYjX3uLvxGb8A9fbJXEdsy2jJky3VKyy10Nq30shaoV/y3 Vw7arLQUWAoTZaXkXjBqzGfg26DxAWE5QfvWBMaiA5dU3DhtDLvz0mPR
Ym0eG7JW3NbuTJdQX6yEPfn5M+RXBgNv4/LyiUgfvMLq2hkTUfDlFs6I PAdd3fseKZg7sDiafjbaLr74AtfuFQ6Vxky1qN79xh/u1L80fih9i4BA MOMyf3L7Y60=
```

DNSSEC\_VALIDATION

```
; fully validated
digital.gov.my. 3597 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2026070206 10800 3600 604800 38400
digital.gov.my. 3597 IN RRSIG SOA 8 3 3600 20260802182621 20260703172621 41959 digital.gov.my. 1AM4sbSa6v+aiKXr77GUTUjyV/e0rXv8p6xVYwCUPZKDKV4392jJ/brB
eUhoWT47AU1ppyBSyxxmRngJwmALk5usUwNOMdCc9ueS09r0FlLcJWg+ q2BoPqXBaoxyh2vceFvVAwZnpwDT9VbcXJsuH7IYvfK1mRYjWNEl7Xp Wyo=
```





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```
Verify return code: 21 (unable to verify the first certificate)
---
DONE
```



## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	43.251.19.58
Connect Time	34.31 ms
TTFB	610.65 ms
Total Time	610.75 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 03 Jul 2026 20:08:10 GMT",
  "3": "Content-Type: text/html",
  "4": "Content-Length: 162",
  "5": "Connection: keep-alive",
  "6": "Location: https://www.digital.gov.my/",
  "8": "HTTP/2 200",
  "9": "server: nginx",
  "10": "date: Fri, 03 Jul 2026 20:08:10 GMT",
  "11": "content-type: text/html; charset=utf-8",
  "12": "vary: Accept-Encoding",
  "13": "accept-ch: Sec-CH-Prefers-Color-Scheme",
  "14": "age: 0",
  "15": "cache-control: private, no-cache, no-store, max-age=0, must-revalidate",
  "16": "critical-ch: Sec-CH-Prefers-Color-Scheme",
  "17": "link: <https://kd-portal.vercel.app/>; rel=\\"alternate\\"; hreflang=\\"ms-MY\\", <https://kd-portal.vercel.app/en-GB>; rel=\\"alternate\\"; hreflang=\\"en-GB\\", <https://kd-portal.vercel.app/>; rel=\\"alternate\\"; hreflang=\\"x-default\\"",
  "18": "link: </_next/static/media/0484562807a97172-s.p.woff2>; rel=preload; as=\\"font\\"; crossorigin=\\"\\\"; type=\\"font/woff2\\", </_next/static/media/8888a3826f4a3af4-s.p.woff2>; rel=preload; as=\\"font\\"; crossorigin=\\"\\\"; type=\\"font/woff2\\", </_next/static/media/b957ea75a84b6ea7-s.p.woff2>; rel=preload; as=\\"font\\"; crossorigin=\\"\\\"; type=\\"font/woff2\\", </_next/static/media/e4af272ccee01ff0-s.p.woff2>; rel=preload; as=\\"font\\"; crossorigin=\\"\\\"; type=\\"font/woff2\\", </_next/static/css/0c5a216a26784e39.css>; rel=preload; as=\\"style\\"",
  "19": "set-cookie: NEXT_LOCALE=ms-MY; Path=/; Expires=Sat, 03 Jul 2027 20:08:10 GMT; Max-Age=31536000; SameSite=lax",
  "20": "strict-transport-security: max-age=63072000; includeSubDomains; preload",
  "21": "vary: RSC, Next-Router-State-Tree, Next-Router-Prefetch, Next-Router-Segment-Prefetch",
  "22": "x-matched-path: /[locale]",
  "23": "x-powered-by: Next.js, Payload",
  "24": "x-vercel-cache: MISS",
  "25": "x-vercel-id: sin1::sin1::jq84c-1783109290418-f5747f75bde6",
  "26": "strict-transport-security: max-age=31536000; includeSubDomains"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	43.251.19.58
Connect Time	22.05 ms
TTFB	431.38 ms
Total Time	431.47 ms

#### Response Headers:

```
{
  "0": "HTTP/2 301",
  "1": "server: nginx",
  "2": "date: Fri, 03 Jul 2026 20:08:10 GMT",
  "3": "content-type: text/html",
  "4": "content-length: 162",
  "5": "location: https://www.digital.gov.my/",
  "6": "strict-transport-security: max-age=31536000; includeSubDomains",
  "8": "HTTP/2 200",
  "9": "server: nginx",
  "10": "date: Fri, 03 Jul 2026 20:08:11 GMT",
  "11": "content-type: text/html; charset=utf-8",
  "12": "vary: Accept-Encoding",
  "13": "accept-ch: Sec-CH-Prefers-Color-Scheme",
  "14": "age: 0",
  "15": "cache-control: private, no-cache, no-store, max-age=0, must-revalidate",
  "16": "critical-ch: Sec-CH-Prefers-Color-Scheme",
  "17": "link: <https://kd-portal.vercel.app/>; rel=\\"alternate\\"; hreflang=\\"ms-MY\\", <https://kd-portal.vercel.app/en-GB>; rel=\\"alternate\\"; hreflang=\\"en-GB\\", <https://kd-portal.vercel.app/>; rel=\\"alternate\\"; hreflang=\\"x-default\\"",

```

```

"18": "link: </_next/static/media/0484562807a97172-s.p.woff2>; rel=preload; as=\"font\"; crossorigin=\"\"; type=\"font/woff2\",
</_next/static/media/8888a3826f4a3af4-s.p.woff2>; rel=preload; as=\"font\"; crossorigin=\"\"; type=\"font/woff2\", </_next/static/media/b957ea75a84b6ea7-s.p.woff2>;
rel=preload; as=\"font\"; crossorigin=\"\"; type=\"font/woff2\", </_next/static/media/e4af272ccee01ff0-s.p.woff2>; rel=preload; as=\"font\"; crossorigin=\"\";
type=\"font/woff2\", </_next/static/css/0c5a216a26784e39.css>; rel=preload; as=\"style\"",
"19": "set-cookie: NEXT_LOCALE=ms-MY; Path=/; Expires=Sat, 03 Jul 2027 20:08:11 GMT; Max-Age=31536000; SameSite=lax",
"20": "strict-transport-security: max-age=63072000; includeSubDomains; preload",
"21": "vary: RSC, Next-Router-State-Tree, Next-Router-Prefetch, Next-Router-Segment-Prefetch",
"22": "x-matched-path: /[locale]",
"23": "x-powered-by: Next.js, Payload",
"24": "x-vercel-cache: MISS",
"25": "x-vercel-id: sin1::sin1::jdztt-1783109291101-ce7b2c5f5771",
"26": "strict-transport-security: max-age=31536000; includeSubDomains"
}
    
```

**Connectivity Test Evidence**

Test	Result
TCP Connect IPv4 → port 80	301 0.014636 0.030527
TCP Connect IPv4 → port 443	000 0.008316 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
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
    
```