


IPv6 Readiness Report

digital.gov.my — digital.gov.my

Category: Government • Generated: 21 Apr 2026, 19:13 MYT • Last Checked: 07 Mar 2026, 01:08 MYT • Verification ID: 6c8d17b7-8db8-4329-b0e3-b5a863b09034

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

Audit trail: <https://ipv6.my6.my/audit/6c8d17b7-8db8-4329-b0e3-b5a863b09034>

| | | |
|---|--------------------------------------|---|
|  Non-Compliant <small>MGv6C-1.0</small> | 48% Partial Support | IPV6-ONLY READINESS Website: ✗ Not Ready DNS: ✓ Ready Email: ✗ Not Ready |
|---|--------------------------------------|---|

| |
|---------------------------------------|
| IPV4 ADDRESSES 43.251.19.58 |
|---------------------------------------|

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) | 43.251.19.4/30 |

| 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. | |
| 8 | Signing Algorithm | INFO | RSASHA256 | |

Email Services (25%) 3 / 6

| # | CHECK | RESULT | DETAIL |
|---|--------------------------------|-------------|-----------------------------------|
| 1 | MX Record Exists | PASS | MX record found. |
| 2 | MX Server Has IPv6 | FAIL | MX server has no IPv6 address. |
| 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 | No common DKIM selector found. |
| 7 | DMARC Record | PASS | DMARC record found. |

IPv4 Baseline (15%) 3 / 3

| # | CHECK | RESULT | DETAIL |
|---|------------------------|-------------|---|
| 1 | A Record | PASS | 43.251.19.58 |
| 2 | HTTP over IPv4 | PASS | HTTP (port 80) responds over IPv4 — 453ms TTFB. |
| 3 | HTTPS over IPv4 | PASS | HTTPS (port 443) responds over IPv4 — 367ms TTFB. |

Audit Trail & Evidence Record

| | |
|-------------------|--|
| Verification ID | 6c8d17b7-8db8-4329-b0e3-b5a863b09034 |
| Domain | digital.gov.my |
| Check Mode | Manual |
| Status | Completed |
| Started | 07 Mar 2026, 01:08:04 MYT |
| Finished | 07 Mar 2026, 01:08:09 MYT |
| Test Node Profile | dual stack |
| Engine Version | 2.0.0 |
| MGv6C Version | 1.0.0 |
| Audit URL | https://ipv6.my6.my/audit/6c8d17b7-8db8-4329-b0e3-b5a863b09034 |

Integrity Verification

| | |
|-----------------------------|--|
| ✓ INTEGRITY VERIFIED | |
| Algorithm | hmac-sha256-v1 |
| Root Hash | c64f2c62592ae1c910d71427432b717130a940798ef5974f8bf8c7b75a8d40ee |
| http_headers | 6bb3e6d1afd8647415f6f41310566da12181794e2717ee019a869591e746f4bf |
| dns_responses | 1ebc2ccb54042ba5396478071ca7e8285eee14e3e83d4bbb3d29642c0648593 |
| tls_handshake | 0a1701759c0e24a46f11c08a2d387f4a833cd7bf5910c44166be4cbf9605b4b1 |
| connectivity_log | 69474c3c648d304353f2f8fe4f3f1e676cd418bad9f73bb785c3d281d9d301a9 |
| dns_resolution_times | ce194601f6b19817c2764d0a5ec27ab0ff16f231b2f71b489faf0288be2d4b8f |

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 | 17.75 | 18.26 | 6.93 | 7.79 | -10.8 |
| Google | IPv4 | 27.71 | 32.64 | 32.47 | 42.65 | +4.8 |
| Google | IPv6 | 32.67 | 43.41 | 29.55 | 38.19 | -3.1 |
| Cloudflare | IPv4 | 20.8 | 22.18 | 21.07 | 21.28 | +0.3 |
| Cloudflare | IPv6 | 55.97 | 74.07 | 27.09 | 55.69 | -28.9 |

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 4067
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
digital.gov.my. 3600 IN A 43.251.19.58
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 44683
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
digital.gov.my. 3600 IN DS 22676 8 2 0B508FDEDB242159A846093DCC8E06655964E16B962C88B371673BEE DEBA5478
digital.gov.my. 3600 IN DS 22676 8 1 D19AA1F1DB491ED43B109680631467B537EC8C99
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 5773
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 6, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
digital.gov.my. 3600 IN MX 10 alt3.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 11 data.dtsa.digital.gov.my.
digital.gov.my. 3600 IN MX 10 alt4.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 1 aspmx.l.google.com.
digital.gov.my. 3600 IN MX 5 alt2.aspmx.l.google.com.
digital.gov.my. 3600 IN MX 5 alt1.aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24203
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
digital.gov.my. 3600 IN NS dns1.gitn.net.my.
digital.gov.my. 3600 IN NS dns2.gitn.net.my.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 64769
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
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"
digital.gov.my. 3600 IN TXT "_globalsign-domain-verification=WjGItkZd3Sui73K8UYbePnrxQvhZt3lmuNukh8EVdy"
digital.gov.my. 3600 IN TXT "google-site-verification=fDA7QRLwWHSuNSlJGr5wlyMEX5G8jrm8A5GjUCz6_5o"
digital.gov.my. 3600 IN TXT "MS=80ECE2C22F76616C712FF3A85D1977BFBA8256A"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 6235
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
digital.gov.my. 1800 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2025113000 10800 3600 604800 38400
```

RRSIG

```
dns1.gitn.net.my. planning.gitn.com.my. 2025113000 10800 3600 604800 38400
SOA 8 3 3600 20260404122103 20260305112103 41959 digital.gov.my. Z5D/ViFiY8D+973X54LECh206NldNemlIGvpkeTAL0tl+kV1jkiRsBvU
ZYPiHLHRXjv6NcuCGVPqiGR9iIONsW8AuDqsVP4RJ5e3aAh5AKz8rmIH RckqenPRfauJmUQaIEz+eh0XdYU5iPu/SymQCNdhP3C0ny/cwyXmUnLL 0ic=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 30847
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
digital.gov.my. 3600 IN DNSKEY 256 3 8 AwEAAdQpV0c+hwRji1u/HKgDvkd+YgYJfcWn9EVIBEIFDLkCeDMBOu3 nB4qWkt+ShLIUPEY0s5I8EUws6EhC3LAXxnrraMtm7mUCT3/i6craNYI
TqK8Gk0kHkRcGA7gvrJ6x06hsges3wr2mycrt7XI7D30UjgduqqoyVP QZJeesTJ
digital.gov.my. 3600 IN DNSKEY 257 3 8 AwEAALbt+PUouRi7PU/eCnSQ0MF9DoFIrcJGPs0yERj4xCDYm2+63V0 VDThXMKrk4C62mKbqIeLCrhcnhRW0iD5lDdMic38ZBqc/plvKrT0nIPW
/SIAZVVX+soYjX3uLvxGb8A9fbJXEdsy2jJky3VKyy10Nq30shaoV/y3 Vw7arLQUWAoTZaXkXjBqzGfg26DxAWE5QfvWBMaiA5dU3DhtDLvz0mPR
Ym0eG7JW3NbuTJdQX6yEPfn5M+RXBgNv4/LyiUgfvMLq2hkTUfDlFs6I PAdd3fseKZg7sDiafjbaLr74AtfuFQ6Vxky1qN79xh/u1L80fih9i4BA MOMyf3L7Y60=
```

DNSSEC_VALIDATION

```
; fully validated
digital.gov.my. 3600 IN SOA dns1.gitn.net.my. planning.gitn.com.my. 2025113000 10800 3600 604800 38400
digital.gov.my. 3600 IN RRSIG SOA 8 3 3600 20260404122103 20260305112103 41959 digital.gov.my. Z5D/ViFiY8D+973X54LECh206NldNemlIGvpkeTAL0tl+kV1jkiRsBvU
ZYPiHLHRXjv6NcuCGVPqiGR9iIONsW8AuDqsVP4RJ5e3aAh5AKz8rmIH RckqenPRfauJmUQaIEz+eh0XdYU5iPu/SymQCNdhP3C0ny/cwyXmUnLL 0ic=
```

```
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 | 18.64 ms |
| TTFB | 342.02 ms |
| Total Time | 342.1 ms |

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Server: nginx",
  "2": "Date: Fri, 06 Mar 2026 09:08:08 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, 06 Mar 2026 09:08:08 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, 06 Mar 2027 09:08:08 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::l96d4-1772788088413-1c02d49007d0",
  "26": "strict-transport-security: max-age=31536000; includeSubDomains"
}
```

IPv4 HTTPS (port 443)

| | |
|--------------|--------------|
| HTTP Status | 200 |
| Connected IP | 43.251.19.58 |
| Connect Time | 36.01 ms |
| TTFB | 454.82 ms |
| Total Time | 454.89 ms |

Response Headers:

```
{
  "0": "HTTP/2 301",
  "1": "server: nginx",
  "2": "date: Fri, 06 Mar 2026 09:08:09 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, 06 Mar 2026 09:08:09 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, 06 Mar 2027 09:08:09 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::4cjh4-1772788089303-238b3f32bb9e",
"26": "strict-transport-security: max-age=31536000; includeSubDomains"
}
    
```

Connectivity Test Evidence

| Test | Result |
|-----------------------------|-----------------------|
| TCP Connect IPv4 → port 80 | 301 0.013638 0.028534 |
| TCP Connect IPv4 → port 443 | 000 0.014406 0.000000 |

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
    
```