

IPv6 Readiness Report

digital.gov.my — digital.gov.my

Category: Government • Generated: 20 Apr 2026, 21:24 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>

X Non-Compliant MGv6C-1.0	48% Partial Support	IPV6-ONLY READINESS Website: X Not Ready DNS: ✓ Ready Email: X Not Ready
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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)	43.251.19.1/32

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	1ebc2ccb5f4042ba5396478071ca7e8285eee14e3e83d4bbb3d29642c0648593
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 11 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+YgYJfcWn9EVIBEIFDLkCeDMB0Ua3 nB4qWkt+ShLIUPEY0s5I8EUws6EhC3LAXxnrrqaMtm7mUCT3/i6craNYI
TqK8Gk0kHkRcGA7gvrJ6x06hsges3wr2mycrt7XI7D30UjgduqqoyVP QZJeesTJ
digital.gov.my. 3600 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. 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/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
    
```