

IPv6 Readiness Report

kpwkm.gov.my — kpwkm.gov.my

Category: Government • Generated: 21 Apr 2026, 19:15 MYT • Last Checked: 07 Mar 2026, 01:04 MYT • Verification ID: 85dd569f-913a-46fb-8b0a-2776651af458

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/85dd569f-913a-46fb-8b0a-2776651af458>**Non-Compliant**

MGv6C-1.0

52%**Partial Support****IPv6-ONLY READINESS**Website: **X Not Ready**DNS: **✓ Ready**Email: **X Not Ready****IPv4 ADDRESSES**

103.8.146.72

Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	PCN
Country	MY
ASN	AS141201
ASN Name	JDN-AS-MY Jabatan Digital Negara JDN, MY
Network (CIDR)	103.8.146.32/27

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%) 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	No common DKIM selector found.
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 3 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	103.8.146.72
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 520ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 502ms TTFB.

Audit Trail & Evidence Record

Verification ID	85dd569f-913a-46fb-8b0a-2776651af458
Domain	kpwkm.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:04:04 MYT
Finished	07 Mar 2026, 01:04:36 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/85dd569f-913a-46fb-8b0a-2776651af458

Integrity Verification

✓ INTEGRITY VERIFIED

Algorithm	hmac-sha256-v1
Root Hash	ac7bebf15da44f3744d263a58e66864bc7d974d080b8fb11a2dbe0ae3dc497a7
http_headers	007d18c7df904ad5a6ef53d115b6c1bae12b3c1d358177ee05b9c6ecc5b5ca01
dns_responses	bb20f253559b7d3c9537f426cbb0997fed0e6699e88a9771986077f0b3196e5d
tls_handshake	5386b1d583b5551e58fc9b37ec466c67f892d239a202e4a3d9ebc3dc3a9adebd
connectivity_log	2653e2136cafbbd921a2dc383144c8511fcabe3adb8174a6bbcb992a5de22eed
dns_resolution_times	6e90d775443340649d04e748cc75ec23f4c49e471036bd7e1f7c38009c06119d

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	19.12	26.64	8.02	17	-11.1
Google	IPv4	14.03	23.94	29.13	32.93	+15.1
Google	IPv6	30.32	43.32	29.01	39.72	-1.3
Cloudflare	IPv4	7.99	8.85	7.99	17.98	0
Cloudflare	IPv6	13.74	20.51	45.93	50.11	+32.2

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 42553
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpwkm.gov.my. 3600 IN A 103.8.146.72
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 28813
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpwkm.gov.my. 3600 IN DS 65014 8 1 59D3D53974DF738F157049AA7D328F9CF42663CD
kpwkm.gov.my. 3600 IN DS 65014 8 2 057173FCF68566094F2443139D86073B73AC0AC38D4A76E01F3F636C B9B12E88
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 1703
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpwkm.gov.my. 300 IN MX 10 alt4.aspmx.l.google.com.
kpwkm.gov.my. 300 IN MX 5 alt1.aspmx.l.google.com.
kpwkm.gov.my. 300 IN MX 10 alt3.aspmx.l.google.com.
kpwkm.gov.my. 300 IN MX 5 alt2.aspmx.l.google.com.
kpwkm.gov.my. 300 IN MX 1 aspmx.l.google.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 55009
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

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

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 43257
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpwkm.gov.my. 3600 IN TXT "MS=ms63759743"
kpwkm.gov.my. 3600 IN TXT "google-site-verification=PrKT4DPbpyTUNxjEM-wmruJqaCErMix7_foEYyLAL7A"
kpwkm.gov.my. 3600 IN TXT "google-site-verification=vmANLSB2sqQArHRXk1ldXWZWEHLjEkcDGguNKI64Sno"
kpwkm.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"
kpwkm.gov.my. 3600 IN TXT "MS=ms23818117"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 54660
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
kpwkm.gov.my. 1688 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026013140 10800 3600 172800 38400
```

RRSIG

```
dns1.gitn.net.my. root.dns1.gitn.net.my. 2026013140 10800 3600 172800 38400
SOA 8 3 38400 20260405074449 20260306064449 62478 kpwm.gov.my. tztVCmJ2MEK3gCLKUslqatEeFkDLo38T70dsK8+mnXGYtU9iETsi+8hj
ZFSDdUxD6vNAM+HznnaiBpgYcz0lceptUmDD0NKUP3NdG0+rpMFwt2b rLVXZ5ykJY1IDqffhONTA3j5/ihrvm9DiDnxC6woC0/0haScRYTv9xD SzQ=
```

DNSKEY

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 47043
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kpwm.gov.my. 21600 IN DNSKEY 256 3 8 AwEAAbpiwM/2mmyvorKqtdWIPfvAKelhr3UDATMuTuVK3WUie8SrFtNCK r6rKxTfeugqhk3rv6FgsGzJKheSHKAbiBVWnbnwY3EhLak0nyFjQZW3
/OYMfkzFKz4s0YuuMCWeMZovZews0GCKaZ3BiQLGfavQkKfPu+luZj Ku9suQ5V
kpwm.gov.my. 21600 IN DNSKEY 257 3 8 AwEAAAdGcyhq4b0ZK+0K5GSS1lgVYSRMMk8rPGKrPAwyUCkovP//dnVoo t8sa9H1G+U+Z2gYk66mjG8DNIcm/zG9Ns879/JKv8fVo0lVoMvd4j6TB
KSGAbWPmyGrpEhcdUwKT5eQhBf9DSAAeEeNx8l00bKrIMXuQbPJTixqaT y00pTIbofLAusBXiInilUjjoXT9fHnvDoQB4TlYrCYexePorYEui/bTU
NpDxz2xpsfMr+QU4h73FfQckw+k/WvDozXsu2Zx2k67aW+FvAVTkeW2 lw0JSB4MK+u0xbgbvzoADGB+mQi8hSAPK9aELJyIJKDnDinh2Z2L79f kqsn5CUQP18=
```

DNSSEC_VALIDATION

```
; fully validated
kpwm.gov.my. 21577 IN SOA dns1.gitn.net.my. root.dns1.gitn.net.my. 2026013140 10800 3600 172800 38400
kpwm.gov.my. 21577 IN RRSIG SOA 8 3 38400 20260405074449 20260306064449 62478 kpwm.gov.my. tztVCmJ2MEK3gCLKUslqatEeFkDLo38T70dsK8+mnXGYtU9iETsi+8hj
ZFSDdUxD6vNAM+HznnaiBpgYcz0lceptUmDD0NKUP3NdG0+rpMFwt2b rLVXZ5ykJY1IDqffhONTA3j5/ihrvm9DiDnxC6woC0/0haScRYTv9xD SzQ=
```



```
MDwGBFUdIAAwNDAYBggrBgEFBQcCARYmaHR0cHM6Ly93d3cuZ2xvYmFsc2lnbi5j
b20vcnVwb3NpdG9yeS8wDQYJKoZIhvcNAQELBQADggEBAJmQyC1f0orUC2bbmANz
EdSIh1IoU4r7rd/9c446ZwTbw1MUcBQJfMPg+NccmBqiXD7b6QDjynCy8SIwIVbb
0615XoFYC20UgDX1b10d65pHBf9ZjQCxQNqQmJYaumxtf4z1s4dfjGRzNpZ5eWL0
6r/4ngGPoJVpjemEuunl1Ig423g7mMA2eymw0LIYkN5S0wCuaiFIFJ6GLazhgDEw
fpoLu4usBC0mmQDo8dIm7A9+04orkjgTHY+GzYZSR+Y0FFukAj6KYXwidlNaLFMz
hriSqHKvoflShx8pftywgVcvzft03PYkz6fiNJBonf6q8amaEsybWbDqKwIX7e
SPY=
-----END CERTIFICATE-----
---
Server certificate
subject=C = MY, ST = Putrajaya, L = Putrajaya, O = "KEMENTERIAN PEMBANGUNAN WANITA, KELUARGA DAN MASYARAKAT", CN = *.KPWKM.GOV.MY
issuer=C = BE, O = GlobalSign nv-sa, CN = GlobalSign RSA OV SSL CA 2018
---
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 3386 bytes and written 378 bytes
Verification: OK
---
New, TLSv1.3, Cipher is TLS_AES_128_GCM_SHA256
Server public key is 2048 bit
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
```

HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	103.8.146.72
Connect Time	18.5 ms
TTFB	549.82 ms
Total Time	549.9 ms

Response Headers:

```
{
  "0": "HTTP/1.1 308 Permanent Redirect",
  "1": "Connection: close",
  "2": "Location: https://kpwkm.gov.my/",
  "3": "Server: Caddy",
  "4": "Date: Fri, 06 Mar 2026 09:04:34 GMT",
  "6": "HTTP/2 200",
  "7": "alt-svc: h3=\":443\"; ma=2592000",
  "8": "content-security-policy: default-src 'self'; script-src 'self' 'unsafe-inline' 'unsafe-eval' blob: *; img-src 'self' data: *; style-src 'self' 'unsafe-inline' *; connect-src 'self' *; font-src 'self' data: *; frame-src 'self' *; object-src 'none'; media-src 'self' *",
  "9": "content-type: text/html; charset=UTF-8",
  "10": "permissions-policy: geolocation=(),midi=(),sync-xhr=(),microphone=(),camera=(),magnetometer=(),gyroscope=(),fullscreen=(self),payment=()",
  "11": "set-cookie:
_csrf=699e32e3f7b81aa3dc628c02c261dde2b445d614f0010c2b5e3ba8ac90e072fea%3A2%3A%7B%3A0%3B%3A5%3A%22_csrf%22%3B%3A1%3B%3A32%3A%22vfoLNBT2GM2orwrxu_fuIGYZeUfutXX%22%3B%7D; path=/; secure; HttpOnly; SameSite=Lax",
  "12": "strict-transport-security: max-age=63072000; includeSubDomains; preload",
  "13": "via: 0.0 Caddy",
  "14": "x-content-type-options: nosniff",
  "15": "x-frame-options: ALLOW FROM https://ai-chatbot.dynaweb4.work",
  "16": "x-xss-protection: 1; mode=block",
  "17": "date: Fri, 06 Mar 2026 09:04:34 GMT"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	103.8.146.72
Connect Time	9.06 ms
TTFB	462.11 ms
Total Time	462.15 ms

Response Headers:

```
[
  "HTTP/2 200",
  "alt-svc: h3=\":443\"; ma=2592000",
  "content-security-policy: default-src 'self'; script-src 'self' 'unsafe-inline' 'unsafe-eval' blob: *; img-src 'self' data: *; style-src 'self' 'unsafe-inline' *; connect-src 'self' *; font-src 'self' data: *; frame-src 'self' *; object-src 'none'; media-src 'self' *",
  "content-type: text/html; charset=UTF-8",
  "permissions-policy: geolocation=(),midi=(),sync-xhr=(),microphone=(),camera=(),magnetometer=(),gyroscope=(),fullscreen=(self),payment=()",
  "set-cookie:
_csrf=13ede995780ba58b74b2ae6d7ccd4dbf19d2f002bf35cd120cbac1e2df0f09a%3A2%3A%7B%3A0%3B%3A5%3A%22_csrf%22%3B%3A1%3B%3A32%3A%22tX84276PD1egxsm0Yhm3RH7RGUjnP2iL%22%3B%7D; path=/; secure; HttpOnly; SameSite=Lax",
  "strict-transport-security: max-age=63072000; includeSubDomains; preload",
  "via: 0.0 Caddy",
  "x-content-type-options: nosniff",
  "x-frame-options: ALLOW FROM https://ai-chatbot.dynaweb4.work",
  "x-xss-protection: 1; mode=block",
  "date: Fri, 06 Mar 2026 09:04:35 GMT"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	308 0.014074 0.029010
TCP Connect IPv4 → port 443	200 0.015463 0.483949

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
```