

# IPv6 Readiness Report

kedah.gov.my — kedah.gov.my

Category: Government • Generated: 21 Apr 2026, 19:14 MYT • Last Checked: 07 Mar 2026, 01:08 MYT • Verification ID: bcd3aef6-e97c-4dac-a8f7-295ed82514c5

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

Audit trail: <https://ipv6.my6.my/audit/bcd3aef6-e97c-4dac-a8f7-295ed82514c5>

<b>X</b> <b>Non-Compliant</b> MGv6C-1.0	<b>48%</b> <b>Partial Support</b>	<b>IPV6-ONLY READINESS</b> Website: <b>X Not Ready</b> DNS: <b>✓ Ready</b> Email: <b>X Not Ready</b>
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## IPV4 ADDRESSES

210.19.105.133

## Network Information (WHOIS / RDAP)

IPv4 Network	
Organization	TT DOTCOM SDN BHD
Country	MY
ASN	AS9930
ASN Name	TTNET-MY TIME dotCom Berhad No. 14, Jalan Majistret U126 Hicom Glenmarie Industrial Park 40150 Shah Alam Selangor, Malaysia, MY
Network (CIDR)	210.19.0.0/16

## 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%)

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	ECDSAP256SHA256

**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>	210.19.105.133
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 752ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 682ms TTFB.

### Audit Trail & Evidence Record

Verification ID	bcd3aef6-e97c-4dac-a8f7-295ed82514c5
Domain	kedah.gov.my
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:08:11 MYT
Finished	07 Mar 2026, 01:08:19 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/bcd3aef6-e97c-4dac-a8f7-295ed82514c5

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	fe4b8fee72eb095b33fddd5d34a07996916df2ed7e00db927a1c4054e3ba6d0
http_headers	96852748c7eb1acedad7833055da6bffaaf7907427c1dbcfc3bd95399ada44cc
dns_responses	dc6f6f95403f6ef2fd1ad2fd6653fc977f39b19a9bb52ae4b2bb1e85163c9f02
tls_handshake	02f724b20611a9c89a884703800800701de822f84c344c0d0f6d63af05a35e7a
connectivity_log	2e6c828e1667b04ff80a3dc1128fc47ac802b7b12e955fc955ee23dedd774097
dns_resolution_times	a9d2d297e0bf914411d8db472a2237d5b7d8e7dea9c9818ff6a79aa307495a2d

### 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	7.82	18.06	7.69	16.22	-0.1
Google	IPv4	16.9	20.71	17.77	20.01	+0.9
Google	IPv6	18.46	32.51	19.4	27.3	+0.9
Cloudflare	IPv4	19.8	34.02	19.21	19.66	-0.6
Cloudflare	IPv6	17.94	195.98	32.14	192.61	+14.2



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 25684
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 00018000IN A 210.19.105.133
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 14740
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 000216000IN DS 12981 13 2 0E20857A9A6015945406AB27C1C42C8C508547CC39C4AE6582FDBD8D 686196A6
kedah.gov.my. 000216000IN DS 54428 13 1 FB03379DDDB3E4D7C7346A026B754C716ABEE943E
kedah.gov.my. 000216000IN DS 12981 13 1 C014A8D8F0CDD7BDD4F0A03ECE59F4A4CBF6B19C
kedah.gov.my. 000216000IN DS 54428 13 2 FCFCDC6FC2E466AB3E7BF2C9E9DE40E98F584D39C6EF9D6D21432A628 B921FDB7
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 42831
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 00024300IN MX 0 mail.kedahmail.gov.my.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50941
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 6, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 000216000IN NS a1-130.akam.net.
kedah.gov.my. 000216000IN NS a20-64.akam.net.
kedah.gov.my. 000216000IN NS a5-65.akam.net.
kedah.gov.my. 000216000IN NS a26-67.akam.net.
kedah.gov.my. 000216000IN NS a3-65.akam.net.
kedah.gov.my. 000216000IN NS a22-64.akam.net.
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 21181
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 00018000IN TXT "google-site-verification=Ndo8lw4xzEBwXvpMwKDXCvx_U7dGG5QkhC0salwKkwo"
kedah.gov.my. 00018000IN TXT "v=spf1 +a +mx +ip4:210.19.105.136 +ip4:210.19.105.135 -all"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 62429
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
kedah.gov.my. 00018000IN SOA a1-130.akam.net. hostmaster.kedah.gov.my. 2023061477 3600 600 604800 300
```

RRSIG

```
a1-130.akam.net. hostmaster.kedah.gov.my. 2023061477 3600 600 604800 300
SOA 13 3 1800 20260308222248 20260305212248 34396 kedah.gov.my. vtf5QWMNoioEV5MPrrZ3fwcySAdZpvLmwJeH0orUhmhuSAmA9edxvv90 9u239SGsWrsGhrShnjzDQevXk8EmNw==
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 34180
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
kedah.gov.my. 007197 IN DNSKEY 257 3 13 /QzzDSxHA4c2FJKune9Ub/pn5NF3PIfJXr9LE45D3sq/VMHH/5UNeKJh UfBsUIz25VKFV9eAPPVzoL0YtH001A==
kedah.gov.my. 007197 IN DNSKEY 256 3 13 XsTBT0aXmqLUG6tsXme6LwQcpXeeK1jXUVslyiPbRwS51BMCKw5K21Wu FSxEvts4Y2D5t9mTadv/vTYEu8mF7g==
kedah.gov.my. 007197 IN DNSKEY 257 3 13 9o8Vxwy7xWbpeFdxM6nSy0EtQBk8DbIo/Niqe9tjLtIkFQk5Ao2KZCh ib3CQ0m5iByI7DG//Ng0n/VNGnPxCQ==
kedah.gov.my. 007197 IN DNSKEY 256 3 13 no0XxRf3TosAi3csEZbbZS1w2Ea2jbdMIiYo7v6H/YMLjkprgf95t3Ir DQRq8teY2R2z76sQLoHZFQtMm050ug==
```

DNSSEC\_VALIDATION

```
; fully validated
kedah.gov.my. 001800 IN SOA a1-130.akam.net. hostmaster.kedah.gov.my. 2023061477 3600 600 604800 300
kedah.gov.my. 001800 IN RRSIG SOA 13 3 1800 20260308222248 20260305212248 34396 kedah.gov.my. vtf5QWMNoioEV5MPrrZ3fwcySAdZpvLmwJeH0orUhmhuSAmA9edxvv90
9u239SGsWrsGhrShnjzDQevXk8EmNw==
```





```

044CV98NRsU213f1kScIZntNagMBAAGjggGBMIIBFTAfBgNVHSMEGDAWgBRWc1hk
LfmsGrASKgRieaFAFYghSTAdBgNVH04EFgQU42Z0u3Boj5xdTg6mSo+bnYKcgpIw
DgYDVR0PAAQH/BAQDAgGGMBIGAIUdEwEB/wQIMAYBAf8CAQAwHQYDVR0LBBYwFAYI
KwYBBQUHAWEGCCsGAQUFBwMCMBSGA1UdIAQUMBIAwBgYEVR0gADAIbgZngQwBAGIw
VAYDVR0fBE0wSzBjOeEgRYZDaHR0cDovL2NybzC5zZWNoawdVLMNvbS9TZWNoawdV
UHVibGljU2VydMvyQXV0aGVudGljYXRpb255b290UjQ2LmNybcDBhYIKwYBBQUH
AQEEeDB2ME8GCCsGAQUFBzAChkNodHRwOi8vY3J0LnNlY3RlZ28uY29tL1NlY3Rl
Z290dWJsaWNTZXJ2ZXJkdXR0ZW50aWNoZGlvdjV3b3RSNDYucDdjMCMGCCsGAQUF
BzABhdodHRwOi8vb2NzcC5zZWNoawdVLMNvbTANBgkqhkiG9w0BAQwFAAOCgEA
BZXWDHWC3cubb/e1I1kz181PFiK/ZUoH09ufmV0rc50bYH/XKkKWexSPqRkwKFKr
7r80uG+p7VNB8rifX6uopqKAgsvZtZs7iAFw04To6vNcxeBt1Eush3cQ4b8nbQR
MQLChgEAqwhuXp9P48T4QEBskYav7+aFjNySsLYLPzNqVM3RNwvBdvp6vgDtGwc
xLKQZVuuNVIAoYyls8swhxDeSHKpRdxRauTLZ+pl+wGvy0pnrLEJGSz9m0Emfbod
e/XopR2NGqaHJ6bIjyxPu6UtyQGI26En7UAeozACRHz06Nx2jTAY9E6NeB6XuobE
wLK025ZRmvglcURG1BrV24tGHHTGxCe8M3oGlpUSMTKQ2dkgLjZVyt+gKdFtWELZ
MuRdi+X3XsrR8LFz+aLUiDRfQqhmw3RxxjIyVKvuu9UPYYInsvxYmFnUSEm+2q1z/
iPUry+xDY9MC6+IhLeKT094VKdFVp7LXH42+wwU+17LroLQ2mK2N/nBLVBwaIhib
QXw4VYKwB86Bc6e56iqsc94KEgD/U4VsjmgfhK+Xp4NM+VYzTTa3QeV3p8x0M0cw
q1p8oZFA+0Bcz3FYWpDiE5j0NWKlw9hXsTyPY/HeZUV59aksKS0SRSmDfe8WJDPX
58uB9/7Lud0G3x0pxQAcffP0ayKavNwDTw4UfJ34cEw=

```

-----END CERTIFICATE-----

```

2 s:C = GB, O = Sectigo Limited, CN = Sectigo Public Server Authentication Root R46
i:C = US, ST = New Jersey, L = Jersey City, O = The USERTRUST Network, CN = USERTrust RSA Certification Authority
a:PKKEY: rsaEncryption, 4096 (bit); sigalg: RSA-SHA384
v:NotBefore: Mar 22 00:00:00 2021 GMT; NotAfter: Jan 18 23:59:59 2038 GMT

```

-----BEGIN CERTIFICATE-----

```

MIIGLTCCBH2gAwIBAgIRANJ/u8HeNZ55Fq1hSVhgmcQwDQYJKoZIhvcNAQEMBQAw

```



HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	210.19.105.133
Connect Time	31.22 ms
TTFB	672.62 ms
Total Time	672.79 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Date: Fri, 06 Mar 2026 09:08:16 GMT",
  "2": "Server: Apache",
  "3": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
  "4": "X-Content-Type-Options: nosniff",
  "5": "Content-Security-Policy: default-src 'self'; img-src 'self' https://trusted-images.com; script-src 'self' https://trusted-scripts.com; style-src 'self' 'unsafe-inline'; font-src 'self'; connect-src 'self' https://api.example.com;",
  "6": "Location: https://kedah.gov.my/",
  "7": "Content-Type: text/html; charset=iso-8859-1",
  "9": "HTTP/1.1 301 Moved Permanently",
  "10": "Date: Fri, 06 Mar 2026 09:08:16 GMT",
  "11": "Server: Apache",
  "12": "Permissions-Policy: private-state-token-redemption=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"), private-state-token-issuance=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"),",
  "13": "X-Redirect-By: WordPress",
  "14": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
  "15": "X-Content-Type-Options: nosniff",
  "16": "Location: https://www.kedah.gov.my/",
  "17": "X-Frame-Options: SAMEORIGIN",
  "18": "Content-Type: text/html; charset=UTF-8",
  "20": "HTTP/1.1 200 OK",
  "21": "Date: Fri, 06 Mar 2026 09:08:16 GMT",
  "22": "Server: Apache",
  "23": "Permissions-Policy: private-state-token-redemption=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"), private-state-token-issuance=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"),",
  "24": "Link: <https://www.kedah.gov.my/index.php/wp-json/>; rel=\"https://api.w.org/\", <https://www.kedah.gov.my/index.php/wp-json/wp/v2/pages/807>; rel=\"alternate\"; title=\"JSON\"; type=\"application/json\", <https://www.kedah.gov.my/>; rel=shortlink",
  "25": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
  "26": "X-Content-Type-Options: nosniff",
  "27": "X-Frame-Options: SAMEORIGIN",
  "28": "Content-Type: text/html; charset=UTF-8"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	210.19.105.133
Connect Time	21.48 ms
TTFB	1735.55 ms
Total Time	1735.63 ms

Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Date: Fri, 06 Mar 2026 09:08:17 GMT",
  "2": "Server: Apache",
  "3": "Permissions-Policy: private-state-token-redemption=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"), private-state-token-issuance=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"),",
  "4": "X-Redirect-By: WordPress",
  "5": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
  "6": "X-Content-Type-Options: nosniff",
  "7": "Location: https://www.kedah.gov.my/",
  "8": "X-Frame-Options: SAMEORIGIN",
  "9": "Content-Type: text/html; charset=UTF-8",
  "11": "HTTP/1.1 200 OK",
  "12": "Date: Fri, 06 Mar 2026 09:08:18 GMT",
  "13": "Server: Apache",
}
```

```

"14": "Permissions-Policy: private-state-token-redemption=(self \"https://www.google.com\" \"https://www.gstatic.com\" \"https://recaptcha.net\"
\"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"), private-state-token-issuance=(self \"https://www.google.com\" \"https://www.gstatic.com\"
\"https://recaptcha.net\" \"https://challenges.cloudflare.com\" \"https://hcaptcha.com\"),
"15": "Link: <https://www.kedah.gov.my/index.php/wp-json/>; rel=\"https://api.w.org/\", <https://www.kedah.gov.my/index.php/wp-json/v2/pages/807>;
rel=\"alternate\"; title=\"JSON\"; type=\"application/json\", <https://www.kedah.gov.my/>; rel=shortlink\",
"16": "Strict-Transport-Security: max-age=31536000; includeSubDomains; preload",
"17": "X-Content-Type-Options: nosniff",
"18": "X-Frame-Options: SAMEORIGIN",
"19": "Content-Type: text/html; charset=UTF-8"
}
    
```

**Connectivity Test Evidence**

Test	Result
TCP Connect IPv4 → port 80	301 0.010941 0.023565
TCP Connect IPv4 → port 443	301 0.010009 0.323506

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