

# IPv6 Readiness Report

redtone.com — redtone.com

Category: Telco • Generated: 20 Apr 2026, 21:44 MYT • Last Checked: 07 Mar 2026, 01:14 MYT • Verification ID: af175d10-cee5-415c-8055-65cdc11da4c8

Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/af175d10-cee5-415c-8055-65cdc11da4c8>

<b>X</b> <b>Non-Compliant</b> MGv6C-1.0	<b>32%</b> <b>Partial Support</b>	<b>IPv6-ONLY READINESS</b> Website: <b>X Not Ready</b> DNS: <b>X Not Ready</b> Email: <b>X Not Ready</b>
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**IPv4 ADDRESSES**

182.54.198.48

**Network Information (WHOIS / RDAP)**

IPv4 Network	
Organization	Redtone Engineering & Network Services Sdn Bhd
Country	MY
ASN	AS24028
ASN Name	CNXNET-AS-MY REDtone, MY
Network (CIDR)	182.54.192.0/19

**Web Services** (35%)

0 / 8

#	CHECK	RESULT	DETAIL
1	<b>AAAA Record</b>	<b>FAIL</b>	No AAAA record found in DNS.
2	<b>Globally Routable IPv6</b>	<b>FAIL</b>	IPv6 address is not globally routable.
3	<b>HTTP over IPv6</b>	<b>FAIL</b>	HTTP is not accessible over IPv6.
4	<b>HTTPS over IPv6</b>	<b>FAIL</b>	HTTPS is not accessible over IPv6.
5	<b>IPv6-Only Reachability</b>	<b>FAIL</b>	Site is not reachable when limited to IPv6-only.
6	<b>TLS Certificate Valid (IPv6)</b>	<b>FAIL</b>	TLS certificate is invalid, expired, or hostname mismatch over IPv6.
7	<b>Dual-Stack (IPv4 + IPv6)</b>	<b>FAIL</b>	Domain is IPv6-only or IPv4-only.
8	<b>HTTP/3 (QUIC)</b>	<b>FAIL</b>	No HTTP/3 support detected.

**DNS & DNSSEC** (25%)

0 / 5

#	CHECK	RESULT	DETAIL
1	<b>NS Has AAAA Record</b>	<b>FAIL</b>	No nameserver has an AAAA record.
2	<b>NS Reachable via IPv6</b>	<b>FAIL</b>	No nameserver is reachable over IPv6.
3	<b>NS Answers Queries via IPv6</b>	<b>FAIL</b>	Nameserver does not answer queries over IPv6.
4	<b>DNSSEC Validated</b>	<b>FAIL</b>	DNSSEC validation failed or zone is unsigned.
5	<b>Reverse DNS (PTR)</b>	<b>FAIL</b>	No PTR record found.
6	<b>DS Record at Parent</b>	<b>FAIL</b>	No DS record at parent.
7	<b>RRSIG Valid</b>	<b>FAIL</b>	No valid RRSIG found.
8	<b>Signing Algorithm</b>	<b>INFO</b>	No DNSKEY record found.

**Email Services** (25%) 4 / 6

#	CHECK	RESULT	DETAIL
1	<b>MX Record Exists</b>	<b>PASS</b>	MX record found.
2	<b>MX Server Has IPv6</b>	<b>PASS</b>	MX server has AAAA record.
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>	DKIM selector found: google._domainkey
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>	182.54.198.48
2	<b>HTTP over IPv4</b>	<b>PASS</b>	HTTP (port 80) responds over IPv4 — 327ms TTFB.
3	<b>HTTPS over IPv4</b>	<b>PASS</b>	HTTPS (port 443) responds over IPv4 — 306ms TTFB.

### Audit Trail & Evidence Record

Verification ID	af175d10-cee5-415c-8055-65cdc11da4c8
Domain	redtone.com
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:13:52 MYT
Finished	07 Mar 2026, 01:14:21 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/af175d10-cee5-415c-8055-65cdc11da4c8

### Integrity Verification

<b>✓ INTEGRITY VERIFIED</b>	
Algorithm	hmac-sha256-v1
Root Hash	2cf1c5f5e28aa4982b26265e9ac4210e57ed0767884fdb3cf60b4ffdcf4b4366
http_headers	54f49fdb5e4ebdbaa7a0872a98039a1a2a69ebf698a8dcc6c5ff969b9e1fdd82
dns_responses	0c43d3bfea2d516d3785b86a395b8ed309ffa0bb85cf8d4783c8a26c09c1a95f
tls_handshake	9808fe74e7704a08e34fec8d0fa85d4da53d2248ca6961e2541d49733e022a21
connectivity_log	67ca1a5259713d58f3cb96ee62d80955794adef5b2e0592fa02654dc7db383a4
dns_resolution_times	2857fad4cd4f88cbeb35ea66a653dec1a3c0320e01f232c9ffa85bc333adb0f1

### 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	7.85	18.05	7.02	17.05	-0.8
Google	IPv4	25.21	254.58	234.27	252.94	+209.1
Google	IPv6	16.8	24.11	25.64	304.15	+8.8
Cloudflare	IPv4	13.32	20.02	16.87	20.11	+3.6
Cloudflare	IPv6	11.04	223.96	232.97	252.86	+221.9



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 13456
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
redtone.com. 1576 IN A 182.54.198.48
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 34489
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
com. 900 IN SOA a.gtld-servers.net. nstld.verisign-grs.com. 1772788441 1800 900 604800 900
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 43408
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
redtone.com. 1547 IN MX 5 redtone-com.mail.protection.outlook.com.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 45995
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
redtone.com. 7200 IN NS ns18.worldnic.com.
redtone.com. 7200 IN NS ns17.worldnic.com.
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 43683
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
redtone.com. 3600 IN TXT "v=spf1 ip4:218.234.16.162 include:spf.protection.outlook.com -all"
redtone.com. 3600 IN TXT "facebook-domain-verification=mcgq045mep84doqcyrwg7ejtaan8gy"
redtone.com. 3600 IN TXT "8315300A1EE87854A9BDE291EF343697.B3B649A373595210D772C88765057C6E.comodoca.com"
redtone.com. 3600 IN TXT "google-site-verification=Vp3HcHvRJDz1VHCOP436Lnt1ZSpMRB5ppg6PLoRfa0"
redtone.com. 3600 IN TXT "MS=ms86479420"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 37660
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
redtone.com. 1800 IN SOA NS17.WORLDNIC.com. namehost.WORLDNIC.com. 126030103 10800 3600 604800 3600
```

### RRSIG

```
NS17.WORLDNIC.com. namehost.WORLDNIC.com. 126030103 10800 3600 604800 3600
```

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**DNSKEY**

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 51683
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
redtone.com. IN SOA NS17.WORLDMIC.com. namehost.WORLDMIC.com. 126030103 10800 3600 604800 3600
```

**DNSSEC\_VALIDATION**

```
; unsigned answer
redtone.com. IN SOA NS17.WORLDMIC.com. namehost.WORLDMIC.com. 126030103 10800 3600 604800 3600
```







```

Hg9jIuLiutZfV5qXMYoCAQl0bg0K6nyTJccBz8NUvXt7y+CDwIDAQABo0IwQDAD
BgNVHQ4EFgQUU3m/WqorSs9UgOHYm8Cd8rIDZsswDgYDVR0PAQH/BAQDAgEGMA8G
A1UdEwEB/wQFMAMBAf8wDQYJKoZIhvcNAQEMBQADggIBAFzUfA3P9wF9QZ1LDHPF
Up/L+M+ZBn8b2kMVn54CVVeWFFSPCeHLCjthzoBN6J2/FNQwISbxmt0uowhT6K0
VwKR82kV2LyI485qC/3vq0LLVSoGIG1VeCkZ7L8wXEskeVX/JJpuXior7gtNn3/3
ATiUFJVDBwn7YKnuHKsSjKCaXqeYalLtiz8I+8jRRa8YFWSQEG9zKC7F4iR0/Fjs
8PRF/iKz6y+00tLFYQXBL2+odnKPi4w2r78NBc5xeambx9spnFixdjQg3IM8WcR
iQycE0xyNN+81XHfqnHd4b1sJdW5XWxavVcStkNr/+XeTWYRUc+ZruwXtuhxkYze
Sf7dNXGiFSeUHM9h4ya7b6NnJ5Fd5t0dCy5oGzuCr+yDZ4XUMFF0sbmZgIn/f3gZ
XHLKYC6S5Q5MMyosycdiyA5d9zZbyuALJQG03RoHnHcAP9Dc1ew91Pq7P8yF1m9/
qS3fuQL39ZeatTXaw2ewh0qpKJ4jjv9cJ2vhsE/zB+4ALtRZ8t5QZK9EFX7mRB
VXyNWQKV3WkdwruWih0hKwbt5DHDAff9Yk2dDLWKMgwsAvgnEzDHNb842m1R0aB
L6KcQ9njRHDEjf8tM7qtj3u1cIiuPhnPQCjY/MiQu12ZiV55lJFH4gxQ+6IHdfG
jjxDah2nGN59PRbxYvnKkKj9
-----END CERTIFICATE-----
2 s:C = GB, 0 = 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
gYgxCzAJBgNVBAYTALVTMRMwEQYDVOQIEwP0ZXcgSmVyc2V5MRQwEgYDVOQHEwtK
ZXJzZXkgQ2l0eTEeMBwGA1UEChMvVGHlIFVTRVJUULVTVCB0ZXR3b3JrMS4wLWYD
VQDEYyVWU0VSVHJ1c3Q0UUNBIENlcnRpZmljYXRpb24gQXV0aG9yaXR5MB4XDTEy
MDMyMjAwMDAwMFoXDTEyMDUxMDEwODIzNTk1OVowXzELMAKGA1UEBhMCR0lXGDAWBgNV
BAoTD1NlY3R3Z28gTGltXRlZDE2MDQGA1UEAxMtU2VjdGlnbyBQdWJsawMgU2V2
dmVyIEF1dGh1bnRyY2F0aW9uIFJvb3Q0UjQ2MIIICjANBgkqhkiG9w0BAQEFAAO

```



## HTTP Response Evidence

### IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	182.54.198.48
Connect Time	3.91 ms
TTFB	309.09 ms
Total Time	309.2 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 302 Found",
  "1": "Date: Fri, 06 Mar 2026 09:14:20 GMT",
  "2": "Server: Apache",
  "3": "Location: https://redtone.com/",
  "4": "Content-Type: text/html; charset=iso-8859-1",
  "6": "HTTP/1.1 301 Moved Permanently",
  "7": "Date: Fri, 06 Mar 2026 09:14:20 GMT",
  "8": "Server: Apache",
  "9": "X-Redirect-By: WordPress",
  "10": "Strict-Transport-Security: max-age=2592000; includeSubDomains; preload",
  "11": "X-Content-Type-Options: nosniff",
  "12": "X-XSS-Protection: 1; mode=block",
  "13": "Access-Control-Allow-Origin: https://www.redtone.com",
  "14": "Access-Control-Allow-Methods: GET, POST, OPTIONS",
  "15": "Access-Control-Allow-Headers: Origin, X-Requested-With, Content-Type, Accept",
  "16": "Access-Control-Allow-Credentials: true",
  "17": "Location: https://www.redtone.com/",
  "18": "X-Frame-Options: SAMEORIGIN",
  "19": "Content-Type: text/html; charset=UTF-8",
  "21": "HTTP/1.1 200 OK",
  "22": "Date: Fri, 06 Mar 2026 09:14:20 GMT",
  "23": "Server: Apache",
  "24": "Link: <https://www.redtone.com/wp-json/>; rel=\\"https://api.w.org/\\"", <https://www.redtone.com/wp-json/wp/v2/pages/19069>; rel=\\"alternate\\"",
  title=\\"JSON\\"", type=\\"application/json\\"", <https://www.redtone.com/>; rel=shortlink",
  "25": "Strict-Transport-Security: max-age=2592000; includeSubDomains; preload",
  "26": "X-Content-Type-Options: nosniff",
  "27": "X-XSS-Protection: 1; mode=block",
  "28": "Access-Control-Allow-Origin: https://www.redtone.com",
  "29": "Access-Control-Allow-Methods: GET, POST, OPTIONS",
  "30": "Access-Control-Allow-Headers: Origin, X-Requested-With, Content-Type, Accept",
  "31": "Access-Control-Allow-Credentials: true",
  "32": "X-Frame-Options: SAMEORIGIN",
  "33": "Content-Type: text/html; charset=UTF-8"
}
```

### IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	182.54.198.48
Connect Time	3.11 ms
TTFB	315.24 ms
Total Time	315.35 ms

#### Response Headers:

```
{
  "0": "HTTP/1.1 301 Moved Permanently",
  "1": "Date: Fri, 06 Mar 2026 09:14:21 GMT",
  "2": "Server: Apache",
  "3": "X-Redirect-By: WordPress",
  "4": "Strict-Transport-Security: max-age=2592000; includeSubDomains; preload",
  "5": "X-Content-Type-Options: nosniff",
  "6": "X-XSS-Protection: 1; mode=block",
  "7": "Access-Control-Allow-Origin: https://www.redtone.com",
  "8": "Access-Control-Allow-Methods: GET, POST, OPTIONS",
  "9": "Access-Control-Allow-Headers: Origin, X-Requested-With, Content-Type, Accept",
  "10": "Access-Control-Allow-Credentials: true",
  "11": "Location: https://www.redtone.com/",
  "12": "X-Frame-Options: SAMEORIGIN",
  "13": "Content-Type: text/html; charset=UTF-8",
  "15": "HTTP/1.1 200 OK",
}
```

```

"16": "Date: Fri, 06 Mar 2026 09:14:21 GMT",
"17": "Server: Apache",
"18": "Link: <https://www.redtone.com/wp-json/>; rel=\"https://api.w.org/\", <https://www.redtone.com/wp-json/wp/v2/pages/19069>; rel=\"alternate\";
title=\"JSON\"; type=\"application/json\", <https://www.redtone.com/>; rel=shortlink",
"19": "Strict-Transport-Security: max-age=2592000; includeSubDomains; preload",
"20": "X-Content-Type-Options: nosniff",
"21": "X-XSS-Protection: 1; mode=block",
"22": "Access-Control-Allow-Origin: https://www.redtone.com",
"23": "Access-Control-Allow-Methods: GET, POST, OPTIONS",
"24": "Access-Control-Allow-Headers: Origin, X-Requested-With, Content-Type, Accept",
"25": "Access-Control-Allow-Credentials: true",
"26": "X-Frame-Options: SAMEORIGIN",
"27": "Content-Type: text/html; charset=UTF-8"
    }
    
```

**Connectivity Test Evidence**

Test	Result
TCP Connect IPv4 → port 80	302 0.001132 0.003226
TCP Connect IPv4 → port 443	301 0.001217 0.168535

**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
    
```