

IPv6 Readiness Report

telegram.org — telegram.org




Scan to verify

Category: Social Media • Generated: 04 Jul 2026, 22:43 MYT • Last Checked: 04 Jul 2026, 03:25 MYT • Verification ID: 2b4d1999-7707-4d46-9db7-66fbd85633f7

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

Audit trail: <https://ipv6.my6.my/audit/2b4d1999-7707-4d46-9db7-66fbd85633f7>

 Partially Compliant <small>MGv6C-1.0</small>	69% Partial Support	IPv6-ONLY READINESS Website: ✓ Ready DNS: ✓ Ready Email: ✗ Not Ready
---	--------------------------------------	---

IPv6 ADDRESSES
2001:67c:4e8:f004::9

IPv4 ADDRESSES
149.154.167.99

Network Information (WHOIS / RDAP)

	IPv6 Network	IPv4 Network
Organization	MNT-TELEGRAM	MNT-TELEGRAM
Country	VG	AG
ASN	AS62041	AS62041
ASN Name	Telegram - Telegram Messenger Inc, VG	Telegram - Telegram Messenger Inc, VG
Network (CIDR)	2001:67c:4e8::/48	149.154.164.0/22

Web Services (35%)				6 / 8
#	CHECK	RESULT	DETAIL	
1	AAAA Record	PASS	2001:67c:4e8:f004::9	
2	Globally Routable IPv6	PASS	All addresses are globally routable.	
3	HTTP over IPv6	PASS	HTTP (port 80) responds over IPv6 — 854ms TTFB.	
4	HTTPS over IPv6	FAIL	HTTPS is not accessible over IPv6.	
5	IPv6-Only Reachability	PASS	Site is fully reachable via IPv6-only.	
6	TLS Certificate Valid (IPv6)	PASS	Certificate valid — issued by C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", OU = http://certs.godaddy.com/repository/, CN = Go Daddy Secure Certificate Authority - G2, expires Sep 12 13:36:48 2026 GMT	
7	Dual-Stack (IPv4 + IPv6)	PASS	Domain has both A and AAAA records.	
8	HTTP/3 (QUIC)	FAIL	No HTTP/3 support detected.	

DNS & DNSSEC (25%)				3 / 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	FAIL	DNSSEC validation failed or zone is unsigned.	
5	Reverse DNS (PTR)	FAIL	No PTR record found.	
6	DS Record at Parent	FAIL	No DS record at parent.	

#	CHECK	RESULT	DETAIL
7	RRSIG Valid	FAIL	No valid RRSIG found.
8	Signing Algorithm	INFO	No DNSKEY record found.

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	DKIM selector found: mail_domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) **3 / 3**

#	CHECK	RESULT	DETAIL
1	A Record	PASS	149.154.167.99
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 840ms TTFB.
3	HTTPS over IPv4	PASS	HTTPS (port 443) responds over IPv4 — 500ms TTFB.

Audit Trail & Evidence Record

Verification ID	2b4d1999-7707-4d46-9db7-66fbd85633f7
Domain	telegram.org
Check Mode	Scheduled
Status	Completed
Started	04 Jul 2026, 03:25:00 MYT
Finished	04 Jul 2026, 03:25:32 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/2b4d1999-7707-4d46-9db7-66fbd85633f7

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	14593e2da0c1fdb3b38715a479431db86af7bc5d0445670ba6a8398c71b47801
http_headers	2e7c8d65ea18ffec00d4b809f200123b8eb12278ebf84b4b26a24869a5a8d702
dns_responses	cc594e1a79ee167fe90d40ab7178c6911c8d24f1f18ada4e787749081d322524
tls_handshake	92ce2f8ad2892e3e8dce089aceef03b621319f1eed93fa8eac29f565f19f87f9
connectivity_log	c2fea593821cc64fc940c74e6a43e26490978efee9502c3f8264e2f3cc84ac86
dns_resolution_times	c856f5b4c7f53fd47005db2976f11ad29a6ca06a60595d4ec7c772914ced3336

Test Node Identity

Os	Linux srv1440888 6.8.0-124-generic #124-Ubuntu SMP PREEMPT_DYNAMIC Tue May 26 13:00:45 UTC 2026 x86_64
Hostname	srv1440888
Php Version	8.3.32
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	18.97	24.79	16.19	22.25	-2.8
Google	IPv4	24.42	26.22	34.45	37.24	+10
Google	IPv6	23.6	26.01	24.53	25.22	+0.9
Cloudflare	IPv4	14.62	22.09	24.01	30.24	+9.4
Cloudflare	IPv6	15.61	34.39	22.51	26.43	+6.9

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 38682
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
telegram.org. 00700 IN A 149.154.167.99
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39190
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
org. 0003586 IN SOA a0.org.afiliast-nst.info. hostmaster.donuts.email. 1783106279 7200 900 1209600 3600
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 45935
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
telegram.org. 00600 IN MX 15 mx110.telegram.org.
telegram.org. 00600 IN MX 10 mx101.telegram.org.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 24678
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
telegram.org. 0021600 IN NS ns-cloud-b1.googledomains.com.
telegram.org. 0021600 IN NS ns-cloud-b4.googledomains.com.
telegram.org. 0021600 IN NS ns-cloud-b3.googledomains.com.
telegram.org. 0021600 IN NS ns-cloud-b2.googledomains.com.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 32159
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
telegram.org. 00600 IN TXT "google-site-verification=R-3XYX47JUVHva3pnhnyjx5D72PtSnjtLMLj_tymTAc"
telegram.org. 00600 IN TXT "yahoo-verification-key=NRNCv6/IcZmkSv28KI97E4zgZVMkk4PejCwNSh8So2k="
telegram.org. 00600 IN TXT "v=spf1 ip4:95.161.64.0/28 ip4:95.161.64.16/30 ip4:149.154.160.0/20 ip4:149.154.162.125/32 ip4:149.154.162.247/32 -all"
telegram.org. 00600 IN TXT "google-site-verification=hAtj8VzR8LGDcv80yGd0ST-pMHU8WNU0lkswau3v2w"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 50981
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; ANSWER SECTION:
telegram.org. 00120 IN AAAA 2001:67c:4e8:f004::9
```

RRSIG

```
ns-cloud-b1.googledomains.com. dns.jomax.net.telegram.org. 2017053111 28800 7200 604800 600
```

DNSKEY

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 14312
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
;; AUTHORITY SECTION:
telegram.org. IN SOA ns-cloud-b1.googledomains.com. dns.jomax.net.telegram.org. 2017053111 28800 7200 604800 600
```

DNSSEC_VALIDATION

```
; unsigned answer
telegram.org. IN SOA ns-cloud-b1.googledomains.com. dns.jomax.net.telegram.org. 2017053111 28800 7200 604800 600
```



```

LdC3oy6Vf3IQmss0nDAbJGq5hTQnwMUBGGh23yj6k49pJwZGcGgfJQpdHkVYC2QT
M5qP9N03iie0hTbBqc5u93Pp962c5LxrmLMok1+f7LjKDSDH0sHitiNadR4UQAxi
5wA4Zv+LSPb2YMS05Ku0NowTwdAckIyBrhNjTTrmeAe1sEd6HL06wwJmsHMUxNIY
MgkEyTjLw0hJxS1S2KkC40Lw39He50eMvjQRsHC+z058444T6n1/riGt1T402A+d
kiu06p4=
-----END CERTIFICATE-----
1 s:C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", OU = http://certs.godaddy.com/repository/, CN = Go Daddy Secure Certificate Authority - G2
i:C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", CN = Go Daddy Root Certificate Authority - G2
a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
v:NotBefore: May 3 07:00:00 2011 GMT; NotAfter: May 3 07:00:00 2031 GMT
-----BEGIN CERTIFICATE-----
MIIE0CCAQ2igAwIBAgIBBzANBgkqhkiG9w0BAQsFADCBgzELMAKGA1UEBhMCVVMx
EDA0BgNVBAgTB0FyaXpvcjEzZDQ0EBAQUAA4IBDwAwggEKAoIBAQC54MsQ1K92vdSTYuswZLiBCGzD
BNliF44v/z5Lz4/0YyU8HzaFkVlVat4a20DYpD0D2lsmcgaFITmZEuZ6ojcnq0v
K/6AYZ15V8TPlvQ/MDxdr/yaFrzDN5ZBUY4RS1T4KL70jL7wMDge87Am+GZHY23e
cS5HjzhU9FGHbTj3ADqRay9vHHZqm8A29vNMDp5T19MR/gd71vCxJ1g07GyQ5HY
pDN06rPWJ0+tJYqLxvTV0KaudAVkV4i1RFxULSo6Pvi4vekyCgKUZMw0LDxSg7n
eT0VDCAHf+jfBDnCaQJ5Y1L6d8EbyHSHyLmTGFBUNUtpTrw700kuH9zB0LL7AgMB
AAQggEaMIIBFjAPBgNVHRMBAf8EBTADAQH/MA4GA1UdDwEB/wQEAwIBBjAdBgNV
HQ4EFgQUQMk9J47MNIWwojPX+2yz8LQsgM4wHwYDVR0jBBgwFoAU0ppqFBxBnKlbv
9r0FQW4gwZTAd94wNAYIKwYBBQUHAQEEDAMmCCGCCsGAQUFBzABhhodHRwOi8v
b2N2cC5nb2RhZGR5LmNvbS8wNQYVVR0fBC4wLDAQoCigJoYkaHR0CDOvL2Nybc5n
b2RhZGR5LmNvbS9nZHV3b3QtZzIuY3J5MEYGA1UdIAQ/MD0w0wYEVVR0gADAzMEDE
CCsGAQUFBzIBFiVodHRwczovL2N1cnRzLmVudGZkZkZkY29tL3JlL3JlcG9zaXRvcnk
MA0GCSqGSIb3DQEBQAA4IBAQAIfmyTEMg4uJapkeV/ov9PB09sPpyIBsLqj6Zz
91cxG7685C/b+LrTW+c05+Z5Yg4MtdqY3MxtfWo5KQ7CC2iXZDXtHwLTXfWMM52
R1JLJ3LXubvDGGqv+qQg+6EnriDfcFDzkSn3ANKR/0yB0tg2DZ2HKocYqetawi
DsoiWJYRBurisUBAA/NxBti21G00w9RKpv0vHP8ds42pM3Z2Czqrpv1KrkQ0U11
GIo/ikGQI31b5/6kA11brLDYGCd+H1QQc7CoZDDu+8CL9IVV05EFdkKrqeKM+2x
LXY2JtwE65/3YR8V3Idv7kaWKK2hJn0KcAcuBK0NvPi8BDAB
-----END CERTIFICATE-----
2 s:C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", CN = Go Daddy Root Certificate Authority - G2
i:C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com, Inc.", CN = Go Daddy Root Certificate Authority - G2
a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
v:NotBefore: Sep 1 00:00:00 2009 GMT; NotAfter: Dec 31 23:59:59 2037 GMT
-----BEGIN CERTIFICATE-----
MIIDxTCCAq2gAwIBAgIBADANBgkqhkiG9w0BAQsFADCBgzELMAKGA1UEBhMCVVMx
EDA0BgNVBAgTB0FyaXpvcjEzZDQ0EBAQUAA4IBDwAwggEKAoIBAQC54MsQ1K92vdSTYuswZLiBCGzD
BNliF44v/z5Lz4/0YyU8HzaFkVlVat4a20DYpD0D2lsmcgaFITmZEuZ6ojcnq0v
K/6AYZ15V8TPlvQ/MDxdr/yaFrzDN5ZBUY4RS1T4KL70jL7wMDge87Am+GZHY23e
cS5HjzhU9FGHbTj3ADqRay9vHHZqm8A29vNMDp5T19MR/gd71vCxJ1g07GyQ5HY
pDN06rPWJ0+tJYqLxvTV0KaudAVkV4i1RFxULSo6Pvi4vekyCgKUZMw0LDxSg7n
eT0VDCAHf+jfBDnCaQJ5Y1L6d8EbyHSHyLmTGFBUNUtpTrw700kuH9zB0LL7AgMB
AAQggEaMIIBFjAPBgNVHRMBAf8EBTADAQH/MA4GA1UdDwEB/wQEAwIBBjAdBgNV
HQ4EFgQUQMk9J47MNIWwojPX+2yz8LQsgM4wHwYDVR0jBBgwFoAU0ppqFBxBnKlbv
9r0FQW4gwZTAd94wNAYIKwYBBQUHAQEEDAMmCCGCCsGAQUFBzABhhodHRwOi8v
b2N2cC5nb2RhZGR5LmNvbS8wNQYVVR0fBC4wLDAQoCigJoYkaHR0CDOvL2Nybc5n
b2RhZGR5LmNvbS9nZHV3b3QtZzIuY3J5MEYGA1UdIAQ/MD0w0wYEVVR0gADAzMEDE
CCsGAQUFBzIBFiVodHRwczovL2N1cnRzLmVudGZkZkZkY29tL3JlL3JlcG9zaXRvcnk
MA0GCSqGSIb3DQEBQAA4IBAQAIfmyTEMg4uJapkeV/ov9PB09sPpyIBsLqj6Zz
91cxG7685C/b+LrTW+c05+Z5Yg4MtdqY3MxtfWo5KQ7CC2iXZDXtHwLTXfWMM52
R1JLJ3LXubvDGGqv+qQg+6EnriDfcFDzkSn3ANKR/0yB0tg2DZ2HKocYqetawi
DsoiWJYRBurisUBAA/NxBti21G00w9RKpv0vHP8ds42pM3Z2Czqrpv1KrkQ0U11
GIo/ikGQI31b5/6kA11brLDYGCd+H1QQc7CoZDDu+8CL9IVV05EFdkKrqeKM+2x
LXY2JtwE65/3YR8V3Idv7kaWKK2hJn0KcAcuBK0NvPi8BDAB
-----END CERTIFICATE-----

```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	149.154.167.99
Connect Time	343.47 ms
TTFB	868.85 ms
Total Time	868.94 ms

Response Headers:

```
{
  "0": "HTTP/1.1 302 Found",
  "1": "Server: nginx/1.30.1",
  "2": "Date: Fri, 03 Jul 2026 19:25:28 GMT",
  "3": "Content-Type: text/html; charset=UTF-8",
  "4": "Content-Length: 0",
  "5": "Connection: keep-alive",
  "6": "Pragma: no-cache",
  "7": "Cache-control: no-store",
  "8": "Location: https://telegram.org/",
  "10": "HTTP/2 200",
  "11": "server: nginx/1.30.1",
  "12": "date: Fri, 03 Jul 2026 19:25:29 GMT",
  "13": "content-type: text/html; charset=utf-8",
  "14": "content-length: 19955",
  "15": "set-cookie: ste_lssid=434d52de65a287380a_10716092506690955494; expires=Sat, 04 Jul 2026 06:32:09 GMT; path=/; samesite=None; secure; HttpOnly",
  "16": "pragma: no-cache",
  "17": "cache-control: no-store",
  "18": "x-frame-options: SAMEORIGIN",
  "19": "strict-transport-security: max-age=31536000; includeSubDomains; preload"
}
```

IPv6 HTTP (port 80)

HTTP Status	200
Connected IP	2001:67c:4e8:f004::9
Connect Time	338.94 ms
TTFB	852.91 ms
Total Time	853.01 ms

Response Headers:

```
{
  "0": "HTTP/1.1 302 Found",
  "1": "Server: nginx/1.30.1",
  "2": "Date: Fri, 03 Jul 2026 19:25:27 GMT",
  "3": "Content-Type: text/html; charset=UTF-8",
  "4": "Content-Length: 0",
  "5": "Connection: keep-alive",
  "6": "Pragma: no-cache",
  "7": "Cache-control: no-store",
  "8": "Location: https://telegram.org/",
  "10": "HTTP/2 200",
  "11": "server: nginx/1.30.1",
  "12": "date: Fri, 03 Jul 2026 19:25:27 GMT",
  "13": "content-type: text/html; charset=utf-8",
  "14": "content-length: 19956",
  "15": "set-cookie: ste_lssid=9fb0b957de2650a859_15435264624245632097; expires=Sat, 04 Jul 2026 06:32:07 GMT; path=/; samesite=None; secure; HttpOnly",
  "16": "pragma: no-cache",
  "17": "cache-control: no-store",
  "18": "x-frame-options: SAMEORIGIN",
  "19": "strict-transport-security: max-age=31536000; includeSubDomains; preload"
}
```

IPv4 HTTPS (port 443)

HTTP Status	200
Connected IP	149.154.167.99
Connect Time	167.28 ms

TTFB	518.07 ms
Total Time	518.11 ms

Response Headers:

```
[
  "HTTP/2 200",
  "server: nginx/1.30.1",
  "date: Fri, 03 Jul 2026 19:25:29 GMT",
  "content-type: text/html; charset=utf-8",
  "content-length: 19956",
  "set-cookie: stel_ssid=eb4220b18c806bce24_11451793043939284648; expires=Sat, 04 Jul 2026 06:32:09 GMT; path=/; samesite=None; secure; HttpOnly",
  "pragma: no-cache",
  "cache-control: no-store",
  "x-frame-options: SAMEORIGIN",
  "strict-transport-security: max-age=31536000; includeSubDomains; preload"
]
```

IPv6 HTTPS (port 443)

HTTP Status	200
Connected IP	2001:67c:4e8:f004::9
Connect Time	168.67 ms
TTFB	523.86 ms
Total Time	523.92 ms

Response Headers:

```
[
  "HTTP/2 200",
  "server: nginx/1.30.1",
  "date: Fri, 03 Jul 2026 19:25:28 GMT",
  "content-type: text/html; charset=utf-8",
  "content-length: 19956",
  "set-cookie: stel_ssid=8e131dd12feba75214_16157116597338935343; expires=Sat, 04 Jul 2026 06:32:08 GMT; path=/; samesite=None; secure; HttpOnly",
  "pragma: no-cache",
  "cache-control: no-store",
  "x-frame-options: SAMEORIGIN",
  "strict-transport-security: max-age=31536000; includeSubDomains; preload"
]
```

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	302 0.167203 0.336796
TCP Connect IPv6 → port 80	302 0.168408 0.342055
TCP Connect IPv4 → port 443	200 0.171404 0.693435
TCP Connect IPv6 → port 443	200 0.168359 0.676902

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
10.6.101.0/24 dev wg0 scope link
10.6.102.0/24 dev wg0 scope link
76.13.221.0/24 dev eth0 proto kernel scope link src 76.13.221.142
172.29.0.0/24 dev wg0 scope link
```