

# IPv6 Readiness Report

**mastodon.social — mastodon.social**

Category: Social Media • Generated: 21 Apr 2026, 19:16 MYT • Last Checked: 07 Mar 2026, 01:16 MYT • Verification ID: d137f11a-7dd6-477e-9486-5e3ce3751bb2

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

Audit trail: <https://ipv6.my6.my/audit/d137f11a-7dd6-477e-9486-5e3ce3751bb2>



**Partially Compliant**

MGv6C-1.0

**82%**

**Partial Support**

#### IPv6-ONLY READINESS

Website: ✓ **Ready**

DNS: ✓ **Ready**

Email: ✗ **Not Ready**

#### IPv6 ADDRESSES

2a04:4e42:200::311  
2a04:4e42:600::311  
2a04:4e42:400::311  
2a04:4e42::311

#### IPv4 ADDRESSES

151.101.129.55  
151.101.193.55  
151.101.65.55  
151.101.1.55

## Network Information (WHOIS / RDAP)

|                | IPv6 Network              | IPv4 Network              |
|----------------|---------------------------|---------------------------|
| Organization   | FASTLY                    | Fastly, Inc.              |
| Country        | US                        | US                        |
| ASN            | AS54113                   | AS54113                   |
| ASN Name       | FASTLY - Fastly, Inc., US | FASTLY - Fastly, Inc., US |
| Network (CIDR) | 2a04:4e40::/29            | 151.101.0.0/16            |

## Web Services (35%)

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| # | CHECK                               | RESULT      | DETAIL  |
|---|-------------------------------------|-------------|---|
| 1 | <b>AAAA Record</b>                  | <b>PASS</b> | 2a04:4e42:200::311, 2a04:4e42:600::311, 2a04:4e42:400::311, 2a04:4e42::311                          |
| 2 | <b>Globally Routable IPv6</b>       | <b>PASS</b> | All addresses are globally routable.  |
| 3 | <b>HTTP over IPv6</b>               | <b>PASS</b> | HTTP (port 80) responds over IPv6 — 1232ms TTFB.  |
| 4 | <b>HTTPS over IPv6</b>              | <b>PASS</b> | HTTPS (port 443) responds over IPv6 — 482ms TTFB.   |
| 5 | <b>IPv6-Only Reachability</b>       | <b>PASS</b> | Site is fully reachable via IPv6-only.  |
| 6 | <b>TLS Certificate Valid (IPv6)</b> | <b>PASS</b> | Certificate valid — issued by C = US, O = Let's Encrypt, CN = R13, expires Apr 18 17:48:46 2026 GMT |
| 7 | <b>Dual-Stack (IPv4 + IPv6)</b>     | <b>PASS</b> | Domain has both A and AAAA records.   |
| 8 | <b>HTTP/3 (QUIC)</b>                | <b>PASS</b> | Alt-Svc: h3 header detected.  |

## DNS & DNSSEC (25%)

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| # | CHECK                              | RESULT      | DETAIL  |
|---|------------------------------------|-------------|---|
| 1 | <b>NS Has AAAA Record</b>          | <b>PASS</b> | Nameserver has IPv6 address.                  |
| 2 | <b>NS Reachable via IPv6</b>       | <b>PASS</b> | Nameserver is reachable via IPv6 on port 53.  |
| 3 | <b>NS Answers Queries via IPv6</b> | <b>PASS</b> | DNS queries answered 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.                         |

| # | CHECK                    | RESULT      | DETAIL                  |
|---|--------------------------|-------------|-------------------------|
| 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> | 151.101.129.55, 151.101.193.55, 151.101.65.55, 151.101.1.55 |
| 2 | <b>HTTP over IPv4</b>  | <b>PASS</b> | HTTP (port 80) responds over IPv4 — 506ms TTFB.             |
| 3 | <b>HTTPS over IPv4</b> | <b>PASS</b> | HTTPS (port 443) responds over IPv4 — 485ms TTFB.           |

## Audit Trail & Evidence Record

|                   |  |
|-------------------|--|
| Verification ID   | d137f11a-7dd6-477e-9486-5e3ce3751bb2                           |
| Domain            | mastodon.social  |
| Check Mode        | Manual   |
| Status            | Completed  |
| Started           | 07 Mar 2026, 01:15:57 MYT                                      |
| Finished          | 07 Mar 2026, 01:16:36 MYT                                      |
| Test Node Profile | dual stack   |
| Engine Version    | 2.0.0  |
| MGv6C Version     | 1.0.0  |
| Audit URL         | https://ipv6.my6.my/audit/d137f11a-7dd6-477e-9486-5e3ce3751bb2 |

## Integrity Verification

|                             |  |
|-----------------------------|--|
| ✓ <b>INTEGRITY VERIFIED</b> |  |
| Algorithm                   | hmac-sha256-v1   |
| Root Hash                   | 9416cfbf8f365c1ddb42cce3a36688d452bb139889eebb04720677e85bd4c0af |
| http_headers                | 51ca558503d5dac47f52c311c1fe56b7f13f1e11352bc19e297d3d608e21e045 |
| dns_responses               | 03d1285ee4cf0e17b63c886cd39ac9dbab4c2ffe0816af4fe1cb3ceae6d66376 |
| tls_handshake               | d0486d74c634e38448c9bf73b43207c088b0c51d759f61b7f2d77befd02188b6 |
| connectivity_log            | 99c37b717ff8235736c87d116d8ff79be484605c886c92af67f3c56493a5cb8  |
| dns_resolution_times        | 4fbaf9738011519e48bf2d1a96899291f2b33c48d46c8fa2e84f89e899dacb3a |

## 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   | 14.99      | 19.68      | 20.28         | 23.03         | +5.3       |
| Google     | IPv4      | 23.54      | 25.67      | 24.69         | 32.62         | +1.2       |
| Google     | IPv6      | 22.5       | 188.57     | 17.59         | 96.48         | -4.9       |
| Cloudflare | IPv4      | 22.09      | 27.57      | 13.99         | 18.42         | -8.1       |
| Cloudflare | IPv6      | 11.76      | 28.53      | 16            | 19.12         | +4.2       |



## DNS Evidence

### A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 18861
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
mastodon.social. 196 IN A 151.101.65.55
mastodon.social. 196 IN A 151.101.193.55
mastodon.social. 196 IN A 151.101.1.55
mastodon.social. 196 IN A 151.101.129.55
```

### DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 13599
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
social. 1800 IN SOA v0n0.nic.social. hostmaster.donuts.email. 1772788264 7200 900 1209600 3600
```

### MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 39894
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
mastodon.social. 3600 IN MX 1 smtp.google.com.
```

### NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 11100
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
mastodon.social. 3600 IN NS ns1.exoscale.io.
mastodon.social. 3600 IN NS ns1.exoscale.net.
mastodon.social. 3600 IN NS ns1.exoscale.com.
mastodon.social. 3600 IN NS ns1.exoscale.ch.
```

### TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 43733
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
mastodon.social. 3600 IN TXT "v=spf1 include:_spf.google.com include:helpscoutemail.com ~all"
mastodon.social. 3600 IN TXT "zoho-verification=zb49784848.zmverify.zoho.eu"
```

### AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 7380
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
mastodon.social. 389 IN AAAA 2a04:4e42:200::311
mastodon.social. 389 IN AAAA 2a04:4e42:600::311
mastodon.social. 389 IN AAAA 2a04:4e42::311
mastodon.social. 389 IN AAAA 2a04:4e42:400::311
```

---

**RRSIG**

```
ns1.exoscale.ch. admin.dnsimple.com. 1579114449 86400 7200 604800 300
```

**DNSKEY**

```
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: NOERROR, id: 63377
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; AUTHORITY SECTION:
mastodon.social. IN SOA ns1.exoscale.ch. admin.dnsimple.com. 1579114449 86400 7200 604800 300
```

**DNSSEC\_VALIDATION**

```
; unsigned answer
mastodon.social. IN SOA ns1.exoscale.ch. admin.dnsimple.com. 1579114449 86400 7200 604800 300
```





```

Axu4CaDmRNZpK/pQrXF17yXCkmEWgvS0Ezy6Z9pcbLIVEGckV/iVeq0A0o2pkg9
p4QRIy0tK2diRENLSF2KysFwbY6B26BFeFs3v1sYVRhFW9nLk0rQVporCS0KyZmf
wVD89qSTlnctLcZnIavjKsKUUInAliU0yYmDyepKR7LWbnwhdx3ewok=
-----END CERTIFICATE-----
---
Server certificate
subject=CN = mastodon.social
issuer=C = US, O = Let's Encrypt, CN = R13
---
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 3160 bytes and written 381 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
No ALPN negotiated
Early data was not sent
Verify return code: 0 (ok)
---
DONE
---
```

IPv6 Connection

|            |                    |
|------------|--------------------|
| IP Used    | 2a04:4e42:200::311 |
| IP Version | 6                  |

```

depth=2 C = US, O = Internet Security Research Group, CN = ISRG Root X1
verify return:1
depth=1 C = US, O = Let's Encrypt, CN = R13
verify return:1
depth=0 CN = mastodon.social
verify return:1
CONNECTED(00000010)
---
Certificate chain
0 s:CN = mastodon.social
  i:C = US, O = Let's Encrypt, CN = R13
  a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
  v:NotBefore: Jan 18 17:48:47 2026 GMT; NotAfter: Apr 18 17:48:46 2026 GMT
-----BEGIN CERTIFICATE-----
MIIFjJCCBA6gAwIBAgISBs9Qb6YYUFzKKGhig535nrzWMA0GCSqGSIb3DQEBChUA
MDMxCzAJBgNVBAYTALVTRMYwFAYDQ0KwEwIMZXRlc3R5Ym90MwQwCgYDVQ0D
EWN5MTE4MTc0ODQ3WmcNMjYwNDE4MTC0ODQ2WjAaMRgwFgYDVQ0D
Ew9tYXN0b2Rvbi5zb2NpYyYwggEiMA0GCSqGSIb3DQEBQUAA4IBDwAwggEKAoIB
AQc2n1RZIKGPLUu6u5j5AS8NeAUGPFHKJe08AfBobCnzI56Nnbywq0jn1BRBzbfje
sKVRdK0LVZx8CYuFAVft5Rr9Fjbp6Le3M3r7oX0EshCX2n3YXlBj+gr00d5A4Tn
f0sGvFZQgaL2p0+bUKtZ8mVvgjPcP03ARjHF1s+oNhWI/QZRdq0LJ9Iw8LUNcc
k7H416NcJTyu4dxsi11D0MmD/itA7WMy+MTq+Seekz05GjvAZxkx8SwpZSwth4Yw
loaFVxsAuhTsgKdS0iVu/6GB4FL7s7F0Eqnqntu+u8a0n/vCFciLh0dotlveGgJ
00EovMYo+YykdhgL6cz7YandAgMBAAgJggJLMIIICrZA0BgNVHQ8BAf8EBAMCBaw
HQYDVR0LBBYwFAYIKwYBBQUHAWEGCCsGAQUFBwMCAwGA1UdEwEB/wQCMCAAwHQYD
VR0BBBYEFKqTdXJB1zVFMJG5VqS9r5TVMecPMB8GA1UdIwYBAFA0ernw8sM6BT
015PeMiyhA471pIzMDMGCCsGAQUFBwEBBCCwJTAjBggrrBgEFBQcwAoYXaHR0cDov
L3IwMy5pLmxlbmN5Lm9yZy8wRgYDVR0RBDBwYiVZmLsZXNubWVzdG9kb24uc29j
aWwFsg9tYXN0b2Rvbi5zb2NpYyYwCE3d3dy5tYXN0b2Rvbi5zb2NpYyYwEwYDVR0g
BAwwCjAIBGZngQwBAGewLgYDVR0fBCCwJTAjocGgH4YdaHR0cDovL3IwMy5pLmxl
bmN5Lm9yZy84Ny5jcmwggEIEBgorBgEEAdZ5AgQCBIIHBIHyAPAAAgBkEcRspBls
p4kccogIuAlYrTyrH1B41J6vq/tUDyX3N8AAAAZv5btavAAAEAwBHMEUCIBMq10dH
W/UEngEkEv5SgIFZ/Y5X6165kzIPDgZJkAAIEA0aowH7PNIj r2qud05XLJZ0L t
1pLq65SwuJsNEHXgGmzYAdgCWL2S/VVixRfdDh2g3CEJ36fA61fak8zZuRqQ/D8qp
xgAAAzVsbtcHAAAEAwBHMEUCIQD1CO+BsoKEo6Aqa9vw2T03rNn/D0LZzvPe2qk6
xGr25gIgo8Nicc9Y0kntW0f1zoMf57jhtCfChqF5IypYAJBqELIwDQYJKoZIhvcN
AQELBQADggEBAIFtLuoE5Fwtf8CGepWR+uhFalq4p2tkfMrLAf7vVmgErE2qa6V
u3VzdeLexusCy/yodIkxVp12N+CzKC+pQUw1rJ1qwt0Ah0rN8Rk006R3TH9+0oJj
wM3cYE41XRSABNXhyi3DCekcoBcmxePCCqbISpqqxk1Aq0Qw+jeIwXYI1Dmf5/oj
quZ4xnLL07JdIctNCVqqqFe9QgD0IVRgYbLoY00sKpGzmg2fuBcwm80IjN8J2wEz
A+va2u8m37HNao6rBkHTtoebHWGRhGN4VvBG8Byqg4fG+WVJUVrmvI0WkCR0+sbxq
ajEI2Q06Qj8M45CGH6KeBrLst4Ng0TTqhrE=
-----END CERTIFICATE-----
1 s:C = US, O = Let's Encrypt, CN = R13
  i:C = US, O = Internet Security Research Group, CN = ISRG Root X1
```

```

a:PKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA256
v:NotBefore: Mar 13 00:00:00 2024 GMT; NotAfter: Mar 12 23:59:59 2027 GMT
-----BEGIN CERTIFICATE-----
MIIFBTCCAu2gAwIBAgIQWgDyEtjUtIDzkKF6imDBTANBgkqhkiG9w0BAQsFADBP
MQswCQYDVQQGEwJVVzEpMCcGA1UEChMgSW50ZXJlZXU2VjJXJpdHkgUmVzZWZy
Y2ggR3JvdXAFTATBgnVBAMTDElTUkcgUm9vdCBYMTAeFw0yNDAzMTMwMDAwMDBa
Fw0yNzAzMTIyMzU5NTLaMDMxCzAJBgNVBAYTALVTRMRWFAFDVQKQEWIMZDQncyBF
bmNyeXB0MQwwCgYDVQQDEwNSMTMwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEK
AoIBAQC1Z3CN0FABZBUXyc25BtStGZCMLA3mBZjklTb2cyEBZPs0+wIG6BgUUNI
f5vHSJaetC3ancgn01ehn6vw1g7UDjDKb5ux0daknTI+WE41b0VYaHEX/D7YXYKg
L7JRbLAAxbhZzjVlyIuhrxA3/+0cXcJFzT/jCuLjfC8cSyTDB0FLrHzarJXnzR
y0H3nAP2/Apd9Np75tt2Qndr9E0i2gB3b9bJXxf92nUupVcM9upctubZpwjPoXTi
dYJ+EJ/B9aLrAek4sQpEzNPCifVJNYIKNLMc6YjCR06CDgo28EdPivEpBHXazeG
XP9enZiVuppD0EqiFwUBDDTmOPAgMBAAGjgfgwgfUwDgYDVR0PAQH/BAQDAgGG
MB0GA1UdJQkQMBCGCSGAQUFBwMCGbgrBgEFBQcDATASBgNVHRMBAf8ECDAGAQH/
AgEAMB0GA1UdDgQWBbTnq58PLD0gU9NeT3jIsoQ009aSMzAfBgNVHSMEGDAWgBR5
tFmne7bL5AFzGaiIyBpY9umbbjAyBggrBgEFBQcBAQQmMCQwIgwYIKwYBBQUHMAKG
Fmh0dHA6Ly94M55pLmXlbnNylm9yZy8wEwYDVR0gBAwwCjAIBgZngQwBAGewJwYD
VR0FBCAwHjAcoBqgGIYwaHR0cDovL3gXLMubGvUy3Iub3JnLzANBgkqhkiG9w0B
AQsFAAOCAGEAUTdYUqEimzW7Tbr0ypLqCfL7V0wYf/Q790H5cHLCZeggfQhDconl
k7Kgh8b0vi+/XuWu7CN8n/UPeg1vo3G+taXirrytthQinAHGwc/Udb0ygJa9zuBc
VyqoH3CXTXDInT+8a+c3aEVMJ2St+pSn4ed+wkDp8ijsijvEyFwE47huLW0Ltzjg
9f0V5Pmrg/zxwbRuL+k0DBDHEJennCsAen7c35Pmx7jpmJ/HtgRhcnz0yjsBvyIw
6L1LIupkCv2SB0DT/xDD3gfQ0yKv6roV4G2EhfEYAsWpmojxjCUCGiyg97FvDtm/
NK2Lsc9lybKx873I2+P2G3CaWpvpAiHCvu30jW8GcXkdFhsXtnIy2imskQqVZ2m
0Pmxobb28Tucr7xBK7CtwvPrb79os7u2XP305f9b/H66GNYRrgLRXlRyjiIoGYL/
f4IIn/Sgusda6wVA6C190kxjU15Y12mHU4+BxyR9cx2hhGS9fAjmZKJss28qxvz6
Axu4CaDmRNZpk/pQrXF17yXCXkmEWgvS0EzY6Z9pcbLIVEGckV/iVeq0A0o2pk99
p4QRiY0tK2diRENLSF2KysFwbY6B26BFeFs3v1sYVRhFW9nLk0RQVporCS0KyZmf
wVDB9qSTLncTLcZnIavjKsKUuInAliU0yYMdYepKR7lWbnwhdx3ewok=
-----END CERTIFICATE-----
---
Server certificate
subject=CN = mastodon.social
issuer=C = US, O = Let's Encrypt, CN = R13
---
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 3160 bytes and written 381 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
No ALPN negotiated
Early data was not sent
Verify return code: 0 (ok)
---
DONE
---
```





```

"4": "Retry-After: 0",
"5": "Location: https://mastodon.social/",
"6": "Accept-Ranges: bytes",
"7": "Date: Fri, 06 Mar 2026 09:16:30 GMT",
"8": "Via: 1.1 varnish",
"9": "X-Served-By: cache-fra-eddf8230084-FRA",
"10": "X-Cache: HIT",
"11": "X-Cache-Hits: 0",
"12": "X-Timer: S1772788591.730855,V50,VE0",
"13": "Strict-Transport-Security: max-age=31557600",
"14": "alt-svc: h3=\":443\";ma=86400,h3-29=\":443\";ma=86400,h3-27=\":443\";ma=86400",
"16": "HTTP/2 200",
"17": "content-type: text/html; charset=utf-8",
"18": "x-request-id: b2be29b3-6892-4c9e-a70e-0dab5bb0b99f",
"19": "x-content-type-options: nosniff",
"20": "cache-control: max-age=15, public, stale-while-revalidate=30, stale-if-error=86400",
"21": "referrer-policy: strict-origin-when-cross-origin",
"22": "x-frame-options: DENY",
"23": "server: Mastodon",
"24": "content-security-policy: base-uri 'none'; default-src 'none'; frame-ancestors 'none'; font-src 'self' https://mastodon.social; img-src 'self' data: blob: https://mastodon.social https://files.mastodon.social; media-src 'self' data: https://mastodon.social https://files.mastodon.social; manifest-src 'self' https://mastodon.social; form-action 'none'; child-src 'self' blob: https://mastodon.social; worker-src 'self' blob: https://mastodon.social; connect-src 'self' data: blob: https://mastodon.social https://files.mastodon.social wss://streaming.mastodon.social; frame-src 'self' https://; style-src 'self' https://mastodon.social 'nonce-Id6Tfa950J20jLHIjiaDyw='; script-src 'self' https://mastodon.social 'wasm-unsafe-eval' 'sha256-Z5KW83D+6/pygIQS3h9XDpF52xw3L3BHc7JL9tj3uMs='",
"25": "etag: W/\"65be9b942e269e7ed4274a1fe6ad85f3\"",
"26": "x-runtime: 0.192752",
"27": "x-xss-protection: 0",
"28": "via: 1.1 varnish, 1.1 varnish",
"29": "accept-ranges: bytes",
"30": "age: 7",
"31": "date: Fri, 06 Mar 2026 09:16:31 GMT",
"32": "x-served-by: cache-fra-etou8220077-FRA, cache-fra-etou8220077-FRA, cache-qap-vomm4700020-QAP",
"33": "x-cache: MISS, HIT, MISS",
"34": "x-cache-hits: 0, 4, 0",
"35": "x-timer: S1772788591.912812,V50,VE157",
"36": "vary: Accept, Accept-Language, Cookie, Accept-Encoding",
"37": "strict-transport-security: max-age=31557600",
"38": "alt-svc: h3=\":443\";ma=86400,h3-29=\":443\";ma=86400,h3-27=\":443\";ma=86400",
"39": "content-length: 34854"
}
    
```

IPv4 HTTPS (port 443)

|              |                |
|--------------|----------------|
| HTTP Status  | 200            |
| Connected IP | 151.101.129.55 |
| Connect Time | 159.71 ms      |
| TTFB         | 482.69 ms      |
| Total Time   | 482.73 ms      |

Response Headers:

```

[
  "HTTP/2 200",
  "content-type: text/html; charset=utf-8",
  "x-request-id: b2be29b3-6892-4c9e-a70e-0dab5bb0b99f",
  "x-content-type-options: nosniff",
  "cache-control: max-age=15, public, stale-while-revalidate=30, stale-if-error=86400",
  "referrer-policy: strict-origin-when-cross-origin",
  "x-frame-options: DENY",
  "server: Mastodon",
  "content-security-policy: base-uri 'none'; default-src 'none'; frame-ancestors 'none'; font-src 'self' https://mastodon.social; img-src 'self' data: blob: https://mastodon.social https://files.mastodon.social; media-src 'self' data: https://mastodon.social https://files.mastodon.social; manifest-src 'self' https://mastodon.social; form-action 'none'; child-src 'self' blob: https://mastodon.social; worker-src 'self' blob: https://mastodon.social; connect-src 'self' data: blob: https://mastodon.social https://files.mastodon.social wss://streaming.mastodon.social; frame-src 'self' https://; style-src 'self' https://mastodon.social 'nonce-Id6Tfa950J20jLHIjiaDyw='; script-src 'self' https://mastodon.social 'wasm-unsafe-eval' 'sha256-Z5KW83D+6/pygIQS3h9XDpF52xw3L3BHc7JL9tj3uMs='",
  "etag: W/\"65be9b942e269e7ed4274a1fe6ad85f3\"",
  "x-runtime: 0.192752",
  "x-xss-protection: 0",
  "accept-ranges: bytes",
  "date: Fri, 06 Mar 2026 09:16:34 GMT",
  "via: 1.1 varnish",
  "age: 10",
  "x-served-by: cache-fra-etou8220077-FRA, cache-fra-eddf8230179-FRA",
  "x-cache: MISS, HIT",
  "x-cache-hits: 0, 1",
  "x-timer: S1772788594.265304,V50,VE1",
  "vary: Accept, Accept-Language, Cookie, Accept-Encoding",
]
    
```

```
"strict-transport-security: max-age=31557600",
"alt-svc: h3=\":443\";ma=86400,h3-29=\":443\";ma=86400,h3-27=\":443\";ma=86400",
"content-length: 34854"
]
```

IPv6 HTTPS (port 443)

|              |                    |
|--------------|--------------------|
| HTTP Status  | 200                |
| Connected IP | 2a04:4e42:200::311 |
| Connect Time | 159.66 ms          |
| TTFB         | 484.29 ms          |
| Total Time   | 484.33 ms          |

Response Headers:

```
[
"HTTP/2 200",
"content-type: text/html; charset=utf-8",
"x-request-id: b2be29b3-6892-4c9e-a70e-0dab5bb0b99f",
"x-content-type-options: nosniff",
"cache-control: max-age=15, public, stale-while-revalidate=30, stale-if-error=86400",
"referrer-policy: strict-origin-when-cross-origin",
"x-frame-options: DENY",
"server: Mastodon",
"content-security-policy: base-uri 'none'; default-src 'none'; frame-ancestors 'none'; font-src 'self' https://mastodon.social; img-src 'self' data: blob: https://mastodon.social https://files.mastodon.social; media-src 'self' data: https://mastodon.social https://files.mastodon.social; manifest-src 'self' https://mastodon.social; form-action 'none'; child-src 'self' blob: https://mastodon.social; worker-src 'self' blob: https://mastodon.social; connect-src 'self' data: blob: https://mastodon.social https://files.mastodon.social wss://streaming.mastodon.social; frame-src 'self' https://mastodon.social https://files.mastodon.social; style-src 'self' https://mastodon.social https://files.mastodon.social; script-src 'self' https://mastodon.social https://files.mastodon.social 'wasm-unsafe-eval' 'sha256-Z5KW83D+6/pygIQS3h9XDPF52xW3l3BHC7JL9tj3uMs='",
"etag: W/\"65be9b942e269e7ed4274a1fe6ad85f3\"",
"x-runtime: 0.192752",
"x-xss-protection: 0",
"accept-ranges: bytes",
"date: Fri, 06 Mar 2026 09:16:31 GMT",
"via: 1.1 varnish",
"age: 8",
"x-served-by: cache-fra-etou8220077-FRA, cache-fra-eddf8230157-FRA",
"x-cache: MISS, HIT",
"x-cache-hits: 0, 1",
"x-timer: S1772788592.985564,VS0,VE1",
"vary: Accept, Accept-Language, Cookie, Accept-Encoding",
"strict-transport-security: max-age=31557600",
"alt-svc: h3=\":443\";ma=86400,h3-29=\":443\";ma=86400,h3-27=\":443\";ma=86400",
"content-length: 34854"
]
```

Connectivity Test Evidence

| Test                        | Result                |
|-----------------------------|-----------------------|
| TCP Connect IPv4 → port 80  | 301 0.159264 0.320025 |
| TCP Connect IPv6 → port 80  | 301 0.159963 0.320807 |
| TCP Connect IPv4 → port 443 | 200 0.161362 0.489629 |
| TCP Connect IPv6 → port 443 | 200 0.159319 0.483708 |

---

### 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
```