

IPv6 Readiness Report

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Report generated from National IPv6 Readiness Monitor — <https://ipv6.my6.my>Audit trail: <https://ipv6.my6.my/audit/4f3f1590-6dd3-4361-af3b-8f4f65c22913>

X Non-Compliant MGv6C-1.0	55% Partial Support	IPv6-ONLY READINESS Website: X Not Ready DNS: ✓ Ready Email: X Not Ready
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IPv6 ADDRESSES 2408:864e:c05::14a	IPv4 ADDRESSES 58.49.72.85
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Network Information (WHOIS / RDAP)

	IPv6 Network	IPv4 Network
Organization	CU-CN	CHINANET-HB
Country	CN	CN
ASN	AS4837	AS4134
ASN Name	CHINA169-BACKBONE CHINA UNICOM China169 Backbone, CN	CHINANET-BACKBONE No.31,Jin-rong Street, CN
Network (CIDR)	2408:8000::/20	58.48.0.0/13

Web Services (35%)				4 / 8
#	CHECK	RESULT	DETAIL	
1	AAAA Record	PASS	2408:864e:c05::14a	
2	Globally Routable IPv6	PASS	All addresses are globally routable.	
3	HTTP over IPv6	PASS	HTTP (port 80) responds over IPv6 — 820ms TTFB.	
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)	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.	
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: default_domainkey
7	DMARC Record	PASS	DMARC record found.

IPv4 Baseline (15%) 2 / 3

#	CHECK	RESULT	DETAIL
1	A Record	PASS	58.49.72.85
2	HTTP over IPv4	PASS	HTTP (port 80) responds over IPv4 — 864ms TTFB.
3	HTTPS over IPv4	FAIL	HTTPS is not accessible over IPv4.

Audit Trail & Evidence Record

Verification ID	4f3f1590-6dd3-4361-af3b-8f4f65c22913
Domain	ccb.com
Check Mode	Manual
Status	Completed
Started	07 Mar 2026, 01:00:16 MYT
Finished	07 Mar 2026, 01:01:33 MYT
Test Node Profile	dual stack
Engine Version	2.0.0
MGv6C Version	1.0.0
Audit URL	https://ipv6.my6.my/audit/4f3f1590-6dd3-4361-af3b-8f4f65c22913

Integrity Verification

✓ INTEGRITY VERIFIED	
Algorithm	hmac-sha256-v1
Root Hash	7a3976f82a1fda061220486076784352a5abca78417c6e021ab26a9eef53d0fc
http_headers	ad70f1f3155c3d56c527de5c64810582bbbf97b349dc9f103b99d4d7aa5af8a
dns_responses	d43d67f635d6d6ac0e106a74533da020dc2c343d9dcc017954b24b08a5afa6e4
tls_handshake	9fe3f34d3c935e4ebd05d83479c9b77ac90e3178cb6baea1755a988182c3ffe3
connectivity_log	d70ca9e8949dc18c364c30033c83e7660499a8d5e4aa78a898795d217b3c0452
dns_resolution_times	4cc5a19e509ac90de37b3385193cf524f1a634aad7dcd6aed3c5f53f97d6b79

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	-
Server Ipv6	-

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	8.48	23.25	22.99	23.06	+14.5
Google	IPv4	373.85	1408.82	233.68	398.93	-140.2
Google	IPv6	413.27	1091.71	90.23	365.46	-323
Cloudflare	IPv4	9.92	19.92	24.11	27.32	+14.2
Cloudflare	IPv6	9.04	9.59	8.95	112.89	-0.1

DNS Evidence

A

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 47346
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ccb.com. 300 IN A 119.36.223.85
```

DS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 57578
;; 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. 1772787611 1800 900 604800 900
```

MX

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 34562
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ccb.com. 300 IN MX 5 mail-in4.ccb.com.
ccb.com. 300 IN MX 5 mail-in1.ccb.com.
ccb.com. 300 IN MX 5 mail-in2.ccb.com.
ccb.com. 300 IN MX 5 mail-in3.ccb.com.
```

NS

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 7341
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ccb.com. 1800 IN NS ns2.ccb.com.
ccb.com. 1800 IN NS ns5.ccb.com.
ccb.com. 1800 IN NS ns4.ccb.com.
ccb.com. 1800 IN NS ns1.ccb.com.
ccb.com. 1800 IN NS ns3.ccb.com.
```

TXT

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 56526
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ccb.com. 300 IN TXT "v=spf1 ip4:223.72.147.0/24 ip4:124.127.253.0/24 -all"
```

AAAA

```
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 58861
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; ANSWER SECTION:
ccb.com. 300 IN AAAA 240e:668:2001::149
```

RRSIG

```
ns2.ccb.com. liuyanan.ccb.com. 2026030257 10800 3600 604800 60
```

DNSKEY

```
;; communications error to 8.8.8.8#53: timed out
;; communications error to 8.8.8.8#53: timed out
;; Got answer:
;; ->HEADER<<- opcode: QUERY, status: SERVFAIL, id: 53625
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
```

DNSSEC_VALIDATION

```
; unsigned answer
ccb.com. IN SOA ns2.ccb.com. liuyanan.ccb.com. 2026030257 10800 3600 604800 60
```

TLS Handshake Evidence

IPV4 Connection

IP Used	58.49.72.85
IP Version	4

```

40C706E48F7D0000:error:0A000152:SSL routines:final_renegotiate:unsafe legacy renegotiation disabled:../ssl/statem/extensions.c:893:
CONNECTED(00000010)
---
no peer certificate available
---
No client certificate CA names sent
---
SSL handshake has read 91 bytes and written 316 bytes
Verification: OK
---
New, (NONE), Cipher is (NONE)
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
  Protocol : TLSv1.2
  Cipher   : 0000
  Session-ID: D80FA3B5D0CCEAE0382CC33710FA3C5A85A17412D81FDD894CB2EC36A9CF88E
  Session-ID-ctx:
  Master-Key:
  PSK identity: None
  PSK identity hint: None
  SRP username: None
  Start Time: 1772787663
  Timeout : 7200 (sec)
  Verify return code: 0 (ok)
  Extended master secret: no
  ---
    
```

IPV6 Connection

IP Used	2408:864e:c05::14a
IP Version	6

```

40B76838547A0000:error:0A000152:SSL routines:final_renegotiate:unsafe legacy renegotiation disabled:../ssl/statem/extensions.c:893:
CONNECTED(00000010)
---
no peer certificate available
---
No client certificate CA names sent
---
SSL handshake has read 91 bytes and written 316 bytes
Verification: OK
---
New, (NONE), Cipher is (NONE)
Secure Renegotiation IS NOT supported
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
  Protocol : TLSv1.2
  Cipher   : 0000
  Session-ID: C6E18997AB3170212953F0CA2BF3863FC85E50190FE3CDF8FAA6D5AAEFE25665
  Session-ID-ctx:
  Master-Key:
  PSK identity: None
  PSK identity hint: None
  SRP username: None
  Start Time: 1772787661
  Timeout : 7200 (sec)
  Verify return code: 0 (ok)
  Extended master secret: no
  ---
    
```


HTTP Response Evidence

IPv4 HTTP (port 80)

HTTP Status	200
Connected IP	58.49.72.85
Connect Time	355.37 ms
TTFB	763.28 ms
Total Time	763.35 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 06 Mar 2026 09:01:09 GMT",
  "Server: Apache",
  "Accept-Ranges: bytes",
  "Vary: Accept-Encoding",
  "Cache-Control: max-age=0",
  "Expires: Fri, 06 Mar 2026 09:01:09 GMT",
  "Content-Length: 439",
  "Content-Type: text/html; charset=UTF-8",
  "Set-Cookie: null=!fs2301np1Y0Z0+TaTbyfSJe/wI/io6GDwyGzgdJgojwUmq47UwLMx6x56ADxQ48z+HB2IhjKztwQ3XQ=; path=/"
]
```

IPv6 HTTP (port 80)

HTTP Status	200
Connected IP	2408:864e:c05::14a
Connect Time	164.61 ms
TTFB	330.15 ms
Total Time	330.22 ms

Response Headers:

```
[
  "HTTP/1.1 200 OK",
  "Date: Fri, 06 Mar 2026 09:01:04 GMT",
  "Server: Apache",
  "Accept-Ranges: bytes",
  "Vary: Accept-Encoding",
  "Cache-Control: max-age=0",
  "Expires: Fri, 06 Mar 2026 09:01:04 GMT",
  "Content-Length: 439",
  "Content-Type: text/html; charset=UTF-8",
  "Set-Cookie: null=!P700E3x2Arklre9IfegjCeF0jtwMMTz9d7JjmjR9EXG7RWsTVRgS0Tovokcqwaws8tsVF0Ls8Ybtckjldh9vc06BcSwpG3oHzaYyDaFA; path=/"
]
```

IPv4 HTTPS (port 443)

HTTP Status	0
Connected IP	58.49.72.85
Connect Time	350.84 ms
TTFB	0 ms
Total Time	8002.54 ms
Error	SSL connection timeout

IPv6 HTTPS (port 443)

HTTP Status	0
Connected IP	2408:864e:c05::14a
Connect Time	156.95 ms
TTFB	0 ms
Total Time	314.12 ms
Error	OpenSSL/3.0.13: error:0A000152:SSL routines::unsafe legacy renegotiation disabled

Connectivity Test Evidence

Test	Result
TCP Connect IPv4 → port 80	200 2.383062 2.709052
TCP Connect IPv6 → port 80	200 2.189771 6.420460
TCP Connect IPv4 → port 443	000 0.348074 0.000000
TCP Connect IPv6 → port 443	000 4.234766 0.000000

Test Node Network Evidence

Node Profile	dual stack
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Egress Connectivity

IPv4 Egress	unreachable
IPv6 Egress	unreachable

Sysctl IPv6 Flags

net.ipv6.conf.all.disable_ipv6	0
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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
```