

GeoDNS | Geographic DNS Response Intelligence

GeoDNS

Domain Check

Geo DNS allocation

DOMAIN NAME

niamonx.io

Domain only (example.com, sub.example.com). Without https:// and path.

TYPES OF REQUESTS

☒ A

☒ AAAA

☒ MX

☒ NS

☒ TXT

Nothing selected → A will be used. All / Remove / Only A

Send

Clear

Request History

Clear

niamonx.io

google.com

dash.niamonx.io

Summary

SUCCESS

LOCATIONS: 5

RESPONSES: 56

22:09:12

Domain

niamonx.io

Time

2297.86 ms

Requested

A, AAAA, MX, NS, TXT

Resolved

A, AAAA, MX, NS, TXT

Unique A

2

Unique AAAA

2

Unique MX

3

Unique NS

2

Unique TXT

2

Raw JSON

Copy JSON

Copy Summary

Description

GeoDNS performs DNS queries from different geographic locations and displays the distribution of responses.

- Supported types: A, AAAA, MX, NS, TXT
- Combining responses by location
- Unique values by type
- Summary of requested/resolved types

If some types do not match, the status is partial. The history and selection of types are stored locally.

Click Raw JSON to see additional details.

#1

40.8584,-74.1638

Location

Clifton, US

Answers

A

172.67.153.184

A

104.21.12.231

AAAA

2606:4700:3030::ac43:99b8

AAAA

2606:4700:3033::6815:ce7

MX

mx2.zoho.eu.

MX

mx.zoho.eu.

MX

mx3.zoho.eu.

NS

abdullah.ns.cloudflare.com.

NS

ashley.ns.cloudflare.com.

TXT

google-site-verification=MQNH6Yoh9hKD1hgzeQtE b9VN5_ikdSpHYQxbGS6Y-4

TXT

v=spf1 include:zohomail.eu -all

#2

51.5085,-0.1257

Location

London, GB

Answers

A

104.21.12.231

A

172.67.153.184

AAAA

2606:4700:3033::6815:ce7

AAAA

2606:4700:3030::ac43:99b8

MX

mx2.zoho.eu.

MX

mx2.zoho.eu.

MX

mx3.zoho.eu.

NS

abdullah.ns.cloudflare.com.

NS

ashley.ns.cloudflare.com.

TXT

google-site-verification=MQNH6Yoh9hKD1hgzeQtE b9VN5_ikdSpHYQxbGS6Y-4

TXT

v=spf1 include:zohomail.eu -all

#3

52.3740,4.8897

#4

50.1155,8.6842

The platform available at <https://dash.niamonx.io/geodns> — known as **GeoDNS** — is a multi-location DNS intelligence tool within the NiamonX platform. It allows users to query DNS records for a domain from several geographic locations and compare how responses differ across regions.

Overview of the Service

GeoDNS is designed to help users understand how a domain resolves from different parts of the world.

Unlike a standard DNS lookup, which checks records from a single resolver or location, GeoDNS performs DNS queries from multiple geographic test points. This makes it possible to detect regional DNS differences, CDN routing behavior, GeoDNS configuration, DNS propagation issues, resolver inconsistencies, and location-based infrastructure allocation.

The tool supports common DNS record types, including:

- A
- AAAA
- MX
- NS
- TXT

GeoDNS is useful for system administrators, DevOps teams, SOC analysts, cybersecurity researchers, infrastructure owners, domain administrators, compliance teams, and OSINT analysts who need to verify DNS behavior across multiple regions.

? How the Tool Works

When a user enters a domain name and selects DNS record types, GeoDNS sends DNS queries from multiple geographic locations.

Each location performs the selected DNS requests and returns the records visible from that region. The tool then aggregates all responses and displays:

- Global query status
- Number of test locations
- Total number of DNS responses
- Total request time
- Requested record types
- Resolved record types
- Unique values by record type
- Per-location answers
- Geographic source coordinates
- Raw JSON with additional technical details

If no record type is selected, the tool automatically uses **A** records.

Example flow:

1. User enters a domain.
 2. User selects one or more DNS record types.
 3. GeoDNS queries the domain from several locations.
 4. Responses are grouped by geographic source.
 5. Unique DNS values are counted by type.
 6. The final report shows global and regional DNS behavior.
-

? What Can Be Checked

GeoDNS accepts clean domain and subdomain names only.

Valid examples:

example.com

sub.example.com

niamonx.io

Invalid examples:

https://example.com

example.com/path

https://example.com/login

1.1.1.1

The tool is intended for DNS checks of domains and subdomains. It should not be used with URLs, protocols, paths, query strings, IP addresses, or ports.

?? Query Interface

The GeoDNS interface contains a domain input field and DNS record type controls.

Domain Name

The user enters a clean domain or subdomain.

Example:

niamonx.io

The interface expects the domain only, without:

- https://
- http://
- Slashes

- Paths
- URL parameters
- Ports

Types of Requests

Users can select one or more DNS record types.

Supported types:

- A
- AAAA
- MX
- NS
- TXT

Quick controls may include:

- All
- Remove
- Only A

If nothing is selected, the system automatically uses type **A**.

? Supported DNS Record Types

A Records

An **A** record maps a domain to an IPv4 address.

Example:

A 172.67.153.184

A records are commonly used for websites, APIs, CDNs, proxies, and IPv4 infrastructure.

AAAA Records

An **AAAA** record maps a domain to an IPv6 address.

Example:

```
AAAA 2606:4700:3033::6815:ce7
```

AAAA records are used for IPv6-enabled services.

MX Records

An **MX** record identifies mail servers responsible for receiving email for the domain.

Example:

```
MX mx.zoho.eu.
```

MX records are important for mail routing, email delivery, and mail-provider verification.

NS Records

An **NS** record identifies authoritative name servers for the domain.

Example:

```
NS abdullah.ns.cloudflare.com.
```

NS records show which DNS provider or authoritative DNS infrastructure controls the zone.

TXT Records

A **TXT** record stores text-based DNS data.

Common TXT record uses include:

- SPF
- DKIM
- DMARC
- Domain ownership verification
- Google / Microsoft / SaaS verification
- Security policies
- Service configuration

Example:

```
TXT v=spf1 include:zohomail.eu -all
```

TXT records are often important for domain security and compliance checks.

? Summary Section

After a successful query, GeoDNS displays a global summary.

Typical fields include:

Field	Description
Status	Overall query result status
Locations	Number of geographic locations used
Responses	Total number of returned DNS answers
Domain	Queried domain
Time	Total request duration
Requested	Record types requested by the user
Resolved	Record types successfully returned
Unique A	Number of unique IPv4 answers
Unique AAAA	Number of unique IPv6 answers
Unique MX	Number of unique mail server answers
Unique NS	Number of unique name server answers
Unique TXT	Number of unique TXT answers

Example summary:

```
SUCCESS
Locations: 5
Responses: 55
Domain: niamonx.io
Time: 2297.86 ms
Requested: A, AAAA, MX, NS, TXT
Resolved: A, AAAA, MX, NS, TXT
Unique A: 2
Unique AAAA: 2
```

Unique MX: 3
Unique NS: 2
Unique TXT: 2

This summary helps users quickly understand whether DNS records are consistent globally and how many unique values were observed.

? Per-Location Results

GeoDNS displays DNS answers separately for each test location.

Each location block may include:

- Location number
- Coordinates
- City and country
- Returned DNS answers
- Record types returned from that location

Example location block:

```
#1
Location: Clifton, US
Coordinates: 40.8584, -74.1638
Answers:
A 172.67.153.184
A 104.21.12.231
AAAA 2606:4700:3030::ac43:99b8
MX mx.zoho.eu.
NS abdullah.ns.cloudflare.com.
TXT v=spf1 include:zohomail.eu -all
```

Per-location results are the core value of GeoDNS. They allow analysts to compare regional DNS behavior instead of relying on a single resolver response.

?? Geographic Test Locations

GeoDNS uses multiple geographic sources for DNS resolution.

Example locations may include:

- Clifton, US
- London, GB
- Amsterdam, NL
- Frankfurt am Main, DE
- Singapore, SG

Each location can return the same or different DNS answers depending on the domain's DNS configuration, CDN provider, resolver behavior, cache state, or regional routing policy.

Geographic DNS results are especially useful for domains using:

- CDN providers
- Anycast DNS
- GeoDNS
- Regional load balancing
- Multi-region infrastructure
- Split traffic routing
- Regional failover
- DNS-based traffic steering

? Requested vs Resolved Types

GeoDNS clearly shows which record types were requested and which were actually resolved.

Example:

```
Requested: A, AAAA, MX, NS, TXT
```

```
Resolved: A, AAAA, MX, NS, TXT
```

If some requested types do not return answers, the status may be partial.

Example:

```
Requested: A, AAAA, MX, NS, TXT
```

```
Resolved: A, NS, TXT
```

```
Status: partial
```

This helps analysts quickly identify missing or unavailable DNS records.

?? Partial Status

If some selected record types do not match or do not return from all locations, the query may be marked as partial.

A partial result may indicate:

- The domain does not have that record type.
- Some resolvers did not return the record.
- DNS propagation is incomplete.
- A regional resolver returned different results.
- A record type is blocked or filtered.
- The backend source returned incomplete data.
- The domain configuration is inconsistent.

A partial status is not always an error. It means the user should review the per-location answers and resolved types carefully.

? Unique Values by Type

GeoDNS calculates unique DNS answers by record type.

Example:

```
Unique A: 2
Unique AAAA: 2
Unique MX: 3
Unique NS: 2
Unique TXT: 2
```

This is useful for identifying whether all locations returned the same values or whether responses vary geographically.

Low Unique Count

A low unique count usually means the DNS response is consistent globally.

High Unique Count

A high unique count may indicate:

- GeoDNS routing
 - CDN edge allocation
 - Regional load balancing
 - DNS failover
 - Multi-cloud infrastructure
 - Inconsistent DNS propagation
 - Resolver differences
-

? GeoDNS and CDN Behavior

Many modern domains use CDNs or geographically distributed DNS infrastructure. GeoDNS helps detect this behavior.

Possible patterns:

Same Records Everywhere

If all locations return the same A and AAAA values, the domain likely has globally consistent DNS responses.

Different A / AAAA Records by Region

If locations return different IPs, the domain may use GeoDNS, CDN edge routing, regional load balancing, or DNS steering.

Same MX / NS Everywhere

Mail and authoritative DNS records are often globally consistent.

TXT Differences

TXT records are usually consistent, but differences may indicate propagation delay, configuration drift, or resolver cache differences.

? Mail and Security Record Review

GeoDNS can be used to check whether mail and security-related DNS records are globally visible.

Important record types:

- MX
- TXT
- NS

Common TXT checks:

- SPF
- DKIM
- DMARC
- Domain verification
- SaaS verification

Example SPF record:

```
v=spf1 include:zohomail.eu -all
```

To check DMARC, users should query:

```
_dmarc.example.com
```

To check DKIM, users should query the specific selector subdomain, such as:

```
selector._domainkey.example.com
```

? Raw JSON

The tool can show Raw JSON with additional technical details.

Raw JSON may include:

- Location metadata
- Resolver details
- Record values
- Record types
- Response timing
- Internal status fields
- Backend diagnostics
- Full per-location response objects

Raw JSON is useful for:

- Advanced troubleshooting
- Developer analysis
- SOC workflows
- API-style evidence capture
- Comparing normalized and raw results
- Creating internal reports
- Debugging inconsistent DNS behavior

Raw output should be handled carefully when it contains internal investigation details.

? Request History

GeoDNS stores domain query history and selected record types locally in the browser.

The history may include:

- Queried domain
- Selected record types
- Timestamp
- Status
- Response count
- Location count

Local history helps users repeat previous checks quickly.

Because it is browser-local, it may be cleared when browser data is deleted or when another browser profile is used.

On shared devices, users should clear local history if domain checks are sensitive.

? Key Features

Multi-Location DNS Queries

Runs DNS checks from several geographic locations.

Domain and Subdomain Support

Accepts clean domain and subdomain names.

Common DNS Record Types

Supports A, AAAA, MX, NS, and TXT.

Automatic A Fallback

If no type is selected, A is used automatically.

Regional Response Comparison

Displays DNS answers separately by location.

Unique Value Aggregation

Counts unique DNS responses per record type.

Requested and Resolved Summary

Shows what was requested and what was returned.

Partial Status Detection

Highlights cases where not all requested types were resolved.

Raw JSON View

Allows technical review of additional response details.

Local History

Stores query history and selected types locally in the browser.

? Recommended Analyst Workflow

A practical GeoDNS workflow should follow these steps.

1. Enter a Clean Domain

Use only a domain or subdomain. Do not include protocol, path, or URL parameters.

2. Select Record Types

Choose A, AAAA, MX, NS, TXT, or use All for a broad overview.

3. Review the Summary

Check status, locations, responses, requested types, resolved types, and unique counts.

4. Compare Locations

Look for differences between Clifton, London, Amsterdam, Frankfurt, Singapore, or other returned locations.

5. Review Unique Values

Check whether unique A / AAAA values differ across regions.

6. Validate Mail Records

Review MX and TXT records for mail and verification consistency.

7. Investigate Partial Results

If status is partial, check which locations or record types did not return expected results.

8. Use Raw JSON When Needed

Open Raw JSON for deeper diagnostics.

9. Repeat After DNS Changes

Run another check after DNS updates, migrations, or propagation windows.

10. Confirm Critical Issues

Use authoritative DNS tools and multiple resolvers before making production decisions.

? Common Use Cases

GeoDNS supports many technical workflows.

DNS Propagation Check

Verify whether DNS updates are visible from multiple locations.

CDN Validation

Check whether a CDN returns different IPs by region.

GeoDNS Testing

Confirm location-based DNS allocation.

Mail Configuration Review

Check MX and TXT record consistency globally.

Domain Migration Validation

Verify that records changed correctly after moving DNS providers or hosting.

Incident Response

Investigate DNS hijacking, unexpected records, or inconsistent resolver behavior.

SOC and OSINT Enrichment

Collect regional DNS evidence for suspicious domains.

Infrastructure Monitoring

Track whether critical DNS records remain stable across locations.

?? Result Interpretation Notes

GeoDNS results should be interpreted carefully.

Important points:

- DNS responses may vary by location.
- Different answers are not always suspicious.
- CDN and GeoDNS providers intentionally return regional answers.
- Resolver cache may affect results.
- DNS propagation can take time.
- TXT record order may vary between responses.
- MX record order may vary while representing the same configuration.
- Partial status may mean records are missing, filtered, delayed, or simply not configured.
- One test is a snapshot, not continuous monitoring.

For production DNS decisions, compare GeoDNS results with authoritative DNS checks and monitoring tools.

?? Security, Privacy & Responsible Use

GeoDNS is intended for lawful DNS troubleshooting, infrastructure analysis, security review, OSINT enrichment, and domain administration.

Acceptable use cases include:

- Checking your own domains
- Validating DNS propagation
- Reviewing CDN behavior
- Investigating suspicious domains
- Checking mail configuration
- Reviewing SPF, DKIM, DMARC, MX, and NS visibility
- Supporting SOC triage
- Documenting DNS infrastructure
- Monitoring regional DNS behavior

Users should follow responsible use principles:

- Do not use DNS intelligence for phishing or impersonation.
- Do not target third-party infrastructure based only on DNS results.
- Validate suspicious findings with additional sources.
- Treat lookup history as potentially sensitive on shared devices.
- Use Raw JSON responsibly.

- Use the tool only for lawful and ethical analysis.
-

?? Technical Highlights

- GeoDNS intelligence module
 - Available at `dash.niamonx.io/geodns`
 - Performs DNS queries from multiple geographic locations
 - Supports domain and subdomain input
 - Rejects protocols, paths, and full URLs
 - Supports A records
 - Supports AAAA records
 - Supports MX records
 - Supports NS records
 - Supports TXT records
 - Uses A automatically when no type is selected
 - Shows global query status
 - Shows number of locations
 - Shows total response count
 - Shows total request time
 - Shows requested record types
 - Shows resolved record types
 - Counts unique records by type
 - Displays answers per location
 - Shows location coordinates
 - Supports Raw JSON details
 - Stores query history locally
 - Stores selected record types locally
 - Suitable for DNS propagation checks, CDN validation, SOC workflows, OSINT, and infrastructure monitoring
-

? Usage Hints

- Enter only a domain or subdomain.
- Do not include `https://`, paths, query strings, or slashes.
- Select A for IPv4 address records.
- Select AAAA for IPv6 address records.
- Select MX for mail routing.
- Select NS for authoritative name servers.
- Select TXT for SPF, verification, and security records.
- Use All for a complete basic DNS overview.
- If nothing is selected, A will be used automatically.

- Compare answers by location to detect GeoDNS behavior.
 - Check unique values to understand regional differences.
 - Use Raw JSON for deeper diagnostics.
 - Query `_dmarc.example.com` separately for DMARC.
 - Query DKIM selector subdomains separately for DKIM.
 - Remember that DNS results can differ because of cache, CDN, resolver, or propagation behavior.
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? Contact Information

For technical, legal, abuse, privacy, or support-related inquiries, users can contact the NiamonX team directly:

support@niamonx.io — Technical Support

other@niamonx.io — General Inquiries

takedown@niamonx.io — Privacy or Data Removal Requests

legal@niamonx.io — Legal and Compliance Matters

Alternative contact channel:

📧 Helpdesk: <https://support.niamonx.io/>

Summary

NiamonX GeoDNS is a multi-location DNS intelligence tool that checks DNS records from several geographic locations and shows how domain responses are distributed globally.

It supports A, AAAA, MX, NS, and TXT queries, displays requested and resolved record types, counts unique values by type, groups answers by location, provides Raw JSON for deeper analysis, and stores query history locally in the browser.

The tool is designed for DNS propagation checks, GeoDNS validation, CDN behavior analysis, mail configuration review, SOC triage, OSINT enrichment, domain migration validation, and infrastructure monitoring.

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