

DNS Servers

wiki.allstarlink.org

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1 DNS Servers

Legacy Version - This page is about a legacy version of AllStarLink. See ¹

ASL utilizes DNS servers based on Knot DNS with an HTTP backend as a way to retrieve node information, such as IAX ports, or IP address.

These DNS servers support the following:

- AllStarlink.org DNS authoritative
- Registration server redundancy
- DNS lookup for nodes information

¹ <https://allstarlink.github.io/adv-topics/dns-servers>

2 Authoritative DNS servers

The authoritative DNS servers run on `register-west.allstarlink.org` and `register-east.allstarlink.org`.

DNSSEC is enabled on all domains and trust is expanded to all sub servers.

3 DNS node lookup

nodes.allstarlink.org is delegated to a DNS running in AWS. The users_Nodes table has a trigger which is run and creates entries/edits them on the records table in the 'allstar' database. This populates a SRV, TXT and A record for every node in the system when it's updated. The trigger has been optimized and has little to no performance impact on the registration process.

Note that servers not in nodes list can appear in DNS, there is no ageing out of entries in DNS. It's up to the server to know it's registered.

3.1 SRV record

```
dig SRV _iax._udp.<nodenumber>.nodes.allstarlink.org
```

will return for a node as follows:

```
_iax._udp.50000.nodes.allstarlink.org. 30 IN SRV 10 10 4569  
50000.nodes.allstarlink.org.
```

where 4569 is the IAX port.

A remote base will be returned like:

```
_iax._udp.50000.nodes.allstarlink.org. 30 IN SRV 10 10 4569  
50000.remotebase.nodes.allstarlink.org.
```

3.2 A record

```
dig <nodenumber>.nodes.allstarlink.org
```

and

```
dig <nodenumber>.remotebase.nodes.allstarlink.org
```

will return the IP address of the IAX server or the proxy IP if defined.

```
2000.nodes.allstarlink.org. 60 IN A 162.248.93.134
```

3.3 TXT Record

The TXT record is used for debugging purposes with a query below:

```
dig TXT <nodenumber>.nodes.allstarlink.org
```

This will return:

```
"NN=50000" "RT=2019-02-28 18:41:29" "RB=0" "IP=44.98.248.144" "PIP=" "PT=4569"
"RH=register-west"
```

Where

- NN is node number
- RT is the last update registration time
- RB is 0 for node is not a remote base, RB is 1 if it is a remote base
- IP is the IP address of the node
- PIP is the proxy IP of the node if set
- PT is the port
- RH is the registration server the node last registered to.

3.4 Contributors

- KB4MDD¹
- KK9ROB²
- N8EI³
- VE7FET⁴
- WD6AWP⁵
- This page was last edited on 29 May 2025, at 00:11.

1 <https://wiki.allstarlink.org/index.php?title=User:KB4MDD&action=edit&redlink=1>

2 <https://wiki.allstarlink.org/index.php?title=User:KK9ROB&action=edit&redlink=1>

3 <https://wiki.allstarlink.org/index.php?title=User:N8EI&action=edit&redlink=1>

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¹ Chapter 5 on page 15

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