

nslookup (**n**ame **s**erver **l**ookup) is a tool used to perform DNS lookups in Linux. It is used to display DNS details, such as the IP address of a particular computer, the MX records for a domain or the NS servers of a domain.

nslookup can operate in two modes: **interactive** and **non-interactive**. The interactive mode allows you to query name servers for information about various hosts and domains or to print a list of hosts in a domain. The non-interactive mode allows you to print just the name and requested information for a host or domain.

The interactive mode

The interactive mode is entered by typing the *nslookup* command without any arguments:

```
susel:~ # nslookup
>
```

To find the IP address of a host, simply type the hostname:

```
susel:~ # nslookup
> linux-bible.com
Server:          192.168.198.2
Address:         192.168.198.2#53

Non-authoritative answer:
Name:   linux-bible.com
Address: 198.57.241.163
```

To perform a reverse DNS lookup, enter the IP address of a host:

```
> 208.117.229.88
Server:          192.168.198.2
Address:         192.168.198.2#53

Non-authoritative answer:
88.229.117.208.in-addr.arpa      name = cache.google.com.

Authoritative answers can be found from:
```

To display MX records (the mail servers responsible for accepting email messages on behalf of a recipient's domain), set the DNS query type to **MX**:

```
> set type=mx
> google.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
google.com   mail exchanger = 50 alt4.aspmx.l.google.com.
google.com   mail exchanger = 10 aspmx.l.google.com.
google.com   mail exchanger = 40 alt3.aspmx.l.google.com.
google.com   mail exchanger = 30 alt2.aspmx.l.google.com.
google.com   mail exchanger = 20 alt1.aspmx.l.google.com.

Authoritative answers can be found from:
```

To display NS records, set the DNS query type to **NS**:

```
> set type=ns
> google.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
google.com   nameserver = ns3.google.com.
google.com   nameserver = ns4.google.com.
google.com   nameserver = ns2.google.com.
google.com   nameserver = ns1.google.com.

Authoritative answers can be found from:
```

The non-interactive mode

The non-interactive mode is invoked by typing the *nslookup* command, followed by the name or the IP address of the host to be looked up.

For example, to display the IP address of a hostname, use the following command:

```
susel:~ # nslookup linux-bible.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
Name:   linux-bible.com
Address: 198.57.241.163
```

To do a reverse DNS lookup, use the following command:

```
susel:~ # nslookup 208.117.229.183
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
183.229.117.208.in-addr.arpa    name = cache.google.com.

Authoritative answers can be found from:
```

To display the MX records, use the *-query=mx* option:

```
susel:~ # nslookup -query=mx google.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
google.com   mail exchanger = 10 aspmx.l.google.com.
google.com   mail exchanger = 30 alt2.aspmx.l.google.com.
google.com   mail exchanger = 50 alt4.aspmx.l.google.com.
google.com   mail exchanger = 20 alt1.aspmx.l.google.com.
google.com   mail exchanger = 40 alt3.aspmx.l.google.com.

Authoritative answers can be found from:
```

To display the NS records, use the *-query=ns* option:

```
susel:~ # nslookup -query=ns google.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
google.com   nameserver = ns3.google.com.
google.com   nameserver = ns4.google.com.
google.com   nameserver = ns2.google.com.
google.com   nameserver = ns1.google.com.

Authoritative answers can be found from:
```

To display the SOA record (information about the domain), use the *-query=soa* option:

```
susel:~ # nslookup -query=soa google.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
google.com
    origin = ns1.google.com
    mail addr = dns-admin.google.com
    serial = 2014021800
    refresh = 7200
    retry = 1800
    expire = 1209600
    minimum = 300

Authoritative answers can be found from:
```

To display all the available DNS records, use the *-query=any* option:

```
susel:~ # nslookup -query=any linux-bible.com
Server:      192.168.198.2
Address:     192.168.198.2#53

Non-authoritative answer:
Name:   linux-bible.com
Address: 198.57.241.163
linux-bible.com nameserver = ns6175.hostgator.com.
linux-bible.com nameserver = ns6176.hostgator.com.
linux-bible.com mail exchanger = 0 linux-bible.com.
linux-bible.com
    origin = ns6175.hostgator.com
    mail addr = dnsadmin.gator3088.hostgator.com
    serial = 2014080700
    refresh = 86400
    retry = 7200
    expire = 3600000
    minimum = 86400

Authoritative answers can be found from:
```