# Troubleshooting

## Test DNS Configuration

**Sample Environment:**

| | |
|---|---|
| DNS Server IP Address: | 192.168.1.2 |
| Presto Server IP Address: | 192.168.1.3 |
| Subnet Address: | 192.168.2.0 |
| Printer Name: | PrinterA |

**Test plan:**
**Presto versions 2.5+**

NOTE: All DNS records must exist on the DNS servers **answering requests from the client device**. These are the DNS servers we will query. Appending a query with an IP address will send the query directly to that IP vs. the DNS server serving the client.

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Open **command prompt** window with **elevated privileges** on a server on the network.

Query A - Query if the **conditional forwarding** record is in place.

```
nslookup -query=ns server.presto.
nslookup -query=ns server.presto. 192.168.1.2
nslookup -query=ns server.presto. 192.168.1.3
```

Result: The result should be the name server of Presto and its IP Address.

Query B - Query **printers** being advertised by Presto.

```
nslookup -query=ptr _ipp._tcp.dnssd.presto.
nslookup -query=ptr _ipp._tcp.dnssd.presto. 192.168.1.2
nslookup -query=ptr _ipp._tcp.dnssd.presto. 192.168.1.3
```

Result: The result should return the printer list advertised by Presto Server.

Query C - Query **Printers** being advertised by Presto on a specific subnet.

```
nslookup -query=ptr _ipp._tcp.0.2.168.192.dnssd.presto.
nslookup -query=ptr _ipp._tcp.0.2.168.192.dnssd.presto. 192.168.1.2
nslookup -query=ptr _ipp._tcp.0.2.168.192.dnssd.presto. 192.168.1.3
```

Result: The result should return the printer list for the subnet advertised by Presto Server.

Query D - Query on **Presto** on subnet.

```
nslookup -query=ptr b._dns-sd._udp.0.2.168.192.in-addr.arpa.
nslookup -query=ptr b._dns-sd._udp.0.2.168.192.in-addr.arpa. 192.168.1.2
nslookup -query=ptr b._dns-sd._udp.0.2.168.192.in-addr.arpa. 192.168.1.3
```

Result: The result should return subnet 0.2.168.192 & dnssd.presto.

Query E - Query the **Statement of Authority**

```
nslookup -query=soa dnssd.presto.
nslookup -query=soa dnssd.presto. 192.168.1.2
nslookup -query=soa dnssd.presto. 192.168.1.3
```

Result: The result should return the Statement of Authority record for the dnssd.presto. domain.

Query F - Query the **SRV Record**

nslookup -query=srv printera._ipp._tcp.dnssd.presto.
nslookup -query=srv printera._ipp._tcp.dnssd.presto. 192.168.1.2
nslookup -query=srv printera._ipp._tcp.dnssd.presto. 192.168.1.3

Result: The result should return the SRV record for a printer.

Query H - Query the **TXT Record**

nslookup -query=txt printera._ipp._tcp.dnssd.presto.
nslookup -query=txt printera._ipp._tcp.dnssd.presto. 192.168.1.2
nslookup -query=txt printera._ipp._tcp.dnssd.presto. 192.168.1.3

Result: The result should return the TXT record for a printer.

**Ping Presto** Server from any browser on the network.

Enter: http://192.168.1.3:9631/ping The result should return **PONG.** If no response, check port TCP 9631

**Troubleshooting from a problem subnet with various clients.**

Troubleshooting from the problem subnet provides invaluable information. All of the queries above can be run from anywhere on the network and if a query produces a different result it highlights a problem with the network. The following devices are useful in troubleshooting from the subnet:

**Macs (OS X)**

Macs can both run DNS command from the terminal as well as discover printers in the exact same way as iOS devices. Mac's are easily placed on a wired or wireless networks.

- Terminal Window - Use the terminal window to run DNS commands from the problem subnet.
- Printer Settings - Settings / Printers / + Add printer. Presto Advertised printers show as "Bonjour".

**iPhone/iPad (iOS)**

Go to Settings / Select wireless network / Select information button

- From this setting you will see the IP Address and subnet mask of the client as well as the DNS servers responding to the client requests.

**Windows PC**

PC's are easily placed on a wired or wireless networks. Run commands from the CMD prompt with elevated privileges.