Part 1 — Summary of the problem found in the DNS and ICMP traffic log

The UDP protocol shows that the client (browser) sent DNS queries to the DNS server (203.0.113.2) over UDP to resolve `www.yummyrecipesforme.com`.

This is based on the network analysis results, which show that the ICMP echo reply returned an error message. The analyzer shows ICMP *Destination Unreachable* responses containing the text **"UDP port 53 unreachable."**

The port noted in the error message is used for DNS (UDP/TCP port **53** — specifically UDP 53 for standard DNS queries).

The most likely issue is that the DNS service on 203.0.113.2 is not listening on port 53 (service down) or port 53 is being blocked/filtered (firewall or network device) — causing DNS queries to be rejected and ICMP "port unreachable" responses to be returned.

Part 2 — Analysis, timeline, findings, and likely cause

Time incident occurred: `13:24:32.192571` (1:24:32.192571 PM) as shown in the tcpdump timestamps.

The IT team became aware of the incident when users and clients reported they could not reach `www.yummyrecipesforme.com` and saw "destination port unreachable." The analyst reproduced the issue and captured packets with `tcpdump`.

The actions taken by the IT department to investigate the incident:

- Ran `tcpdump` while attempting to resolve and load the site.
- Observed outbound UDP DNS queries from `192.51.100.15` to `203.0.113.2` and immediate ICMP **Destination Unreachable (UDP port 53 unreachable)** replies from `203.0.113.2`.
- Retries were attempted; the same ICMP error repeated

Key findings of the IT department's investigation:

- Protocols observed: **UDP** (DNS query) and **ICMP** (error responses).
- Source IP (client): `192.51.100.15`. Destination DNS server: `203.0.113.2`.
- Error text: **"UDP port 53 unreachable"** — indicates the server or an intermediate device rejected UDP traffic to port 53.
- Repeated ICMP Port Unreachable responses on each attempt (not intermittent success).

A likely cause of the incident: one of the following (ranked):

1. DNS service (named/BIND/other) on 203.0.113.2 is stopped/crashed, or not bound to port 53.
2. Firewall or network ACL is blocking UDP port 53 to that host.
3. Misconfiguration or recent changes on the DNS server (service unbound, listening only on localhost) or network routing/NAT issues. A Malicious attack is less likely based on the evidence (ICMP Port Unreachable typically indicates service not listening), but cannot be ruled out until logs are checked.