

# Troubleshooting DNS

LPIC-2: Linux Engineer (202-450)

## Objectives:

At the end of this episode, I will be able to:

1. Describe potential issues that could cause BIND to fail.
2. Utilize the `ss`, `systemctl`, `mdc`, and `named-checkconf` utilities to troubleshoot a BIND server.

Additional resources used during the episode can be obtained using the download link on the overview episode.

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- Typical BIND failures
    - Configuration error
    - Software/networking conflict
    - Corrupted database
  - Verify configuration files
    - `named-checkconf`
    - Similar to `named-checkzone`
    - No arguments needed
  - Restart BIND if necessary
    - When adding new zones
      - `sudo rndc reconfig`
    - When modifying a zone
      - `sudo rndc reload lab.itpro.tv`
    - Full restart
      - `systemctl restart named.service`
  - BIND startup issues
    - Verify *named* started successfully
      - `systemctl status named.service`
    - Check the logs
      - `journalctl -u named.service`
    - Locating a software conflict
      - `sudo ss -natp`
  - Verify database integrity
    - Write the database to disk
      - `sudo rndc dumpdb -zones`
      - `sudo rndc dumpdb -cache`
    - View the database export
      - `less /var/cache/bind/named_dump.db`
  - DNS Client Tools
    - `dig`
    - `nslookup`