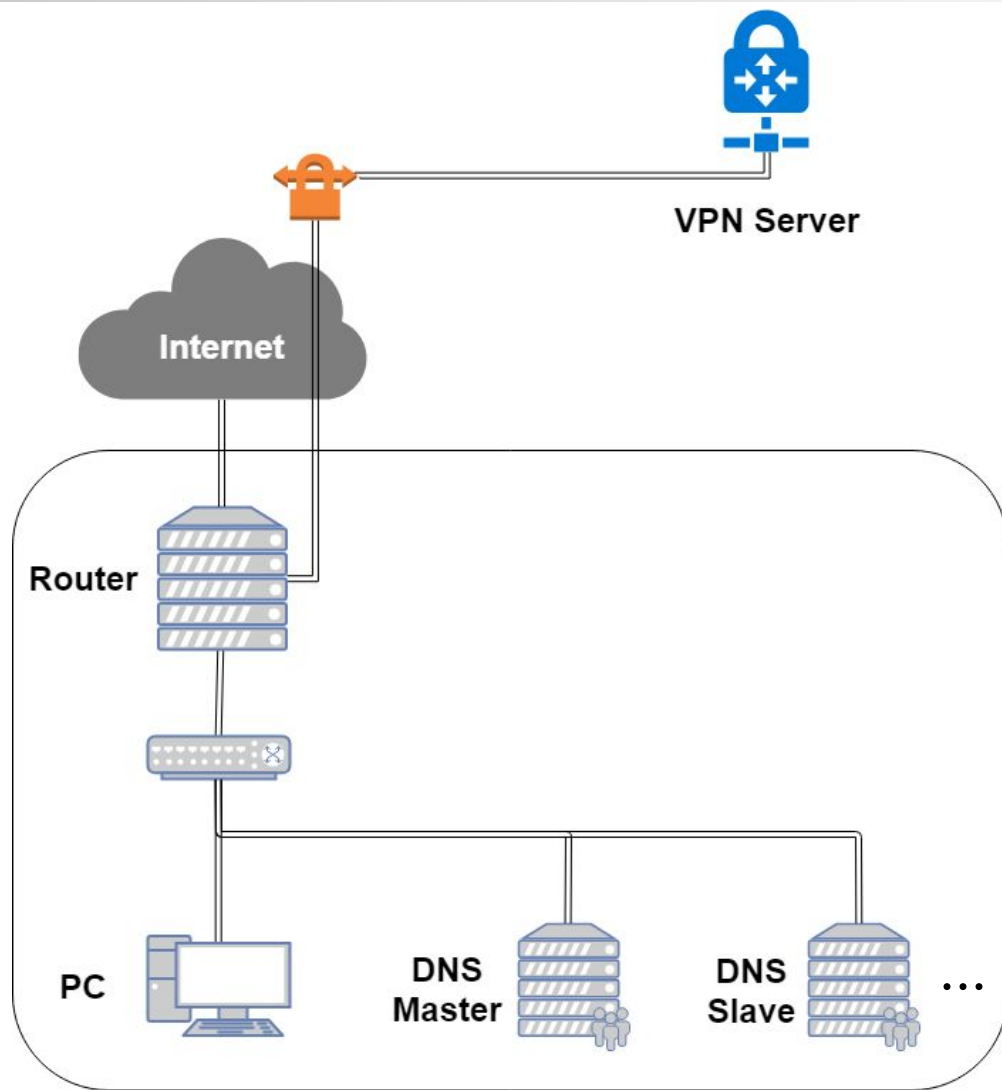# Network Administration HW3

yca

Purpose

❑ Knowing the basic usage of DNS server.
❑ Knowing the basic configuration of BIND.
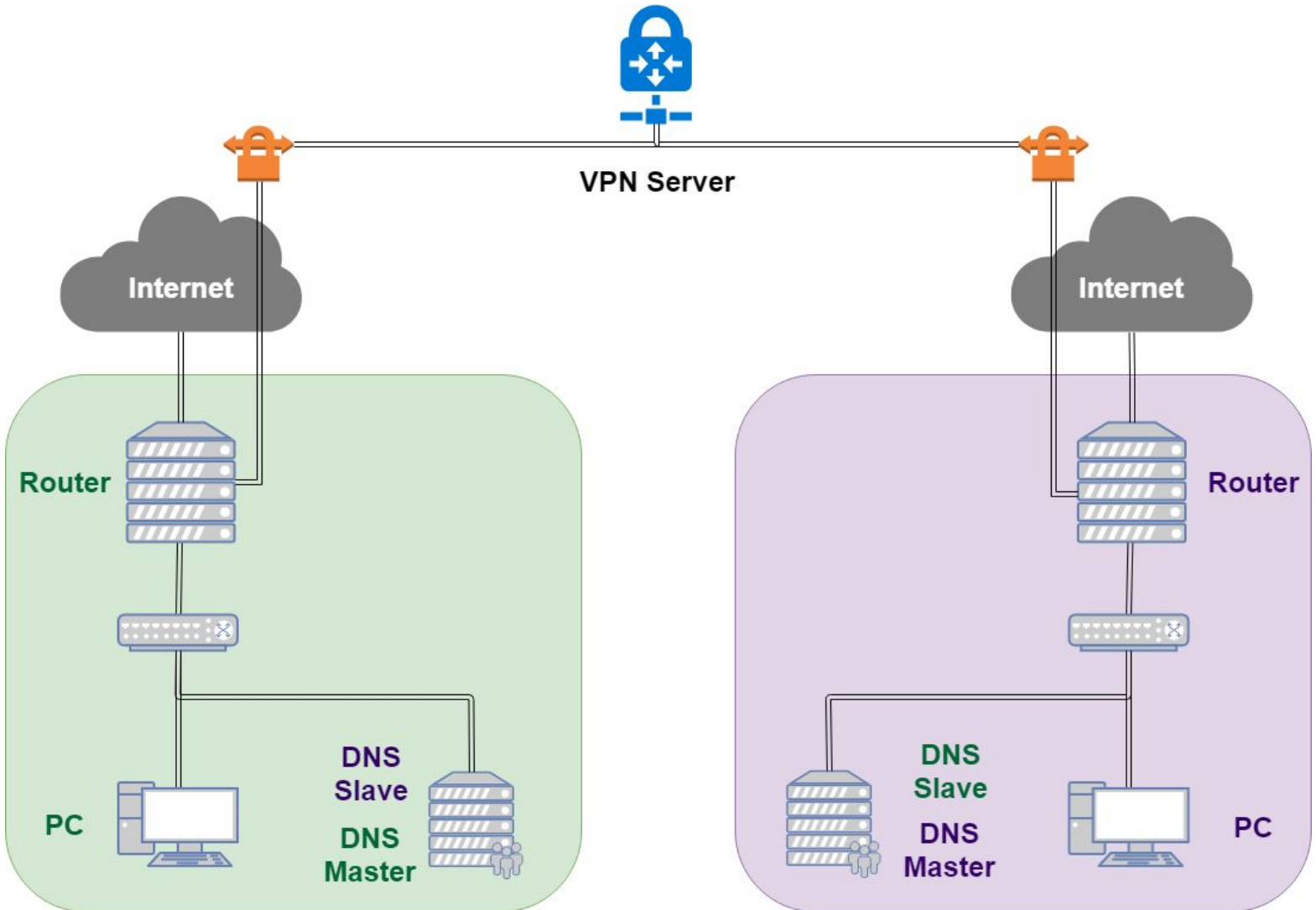
Overview

Overview (Cont.)

❏ Use "{student_ID}.nasa." as your domain name.
❏ ns1.{student_ID}.nasa.
- IP: 10.113.x.1
- Master zone
  - {student_ID}.nasa.
  - sec.{student_ID}.nasa.

❏ ns2.{student_ID}.nasa.
- Slave zone
  - {student_ID}.nasa.
  - sec.{student_ID}.nasa.

❏ You can find a teammate and do this homework together.

Overview (Cont.)

Requirements

❑ Setup a DNS servers with BIND.
- ns1.{student_ID}.nasa.
- Serve your own domain.
  - {student_ID}.nasa.
- Be able to query from the intranet. (10.113.x.x/16)

❑ Setup another DNS server with BIND
- ns2.{student_ID}.nasa.
- Serve ns1 as a slave.
- Updates should be synchronized
  - SOA must have same Serial number

❑ Forward nasa. to 10.113.0.254 🗨

❑ Security
- Only allow zone transfer from Slave and 10.113.0.0/21.
- No open recursion.

Requirements (Cont.)

❑ Add A record for the machines in HW[1-3].
- router
- ldap1 (LDAP Master)
- ldap2 (LDAP Slave)
- ns1 (DNS Master)
- ns2 (DNS Slave)

❑ Add CNAME record
- nasa => nasa.cs.nctu.edu.tw.
- friend => ns2

❑ VIEW
- Add A record for view.{your_domain}.
- For queries from 10.113.2.x/24, 10.113.3.x/24
  - Answer 140.113.235.131
- For queries from 10.113.1.x/24, 10.113.4.x/24
  - Answer 140.113.235.151
- For other queries
  - Answer 10.113.x.87

Requirements (Cont.)

❑ Allow reverse lookup from the intranet.
- nslookup 10.113.x.y
- y.x.113.10.in-addr.arpa

❑ Add SSHFP record of your machines' ssh key fingerprint.
- router
- ldap1 (LDAP Master)
- ldap2 (LDAP Slave)
- ns1 (DNS Master)
- ns2 (DNS Slave)

❑ DNSSEC
- Delegate sec.{your_domain} to yourself.
- Add {student_ID} TXT record to id.sec.{your_domain}
- Enable on sec.{your_domain}
- You must use NSEC3 to implement it.
- https://github.com/dnsviz/dnsviz.git

DEMO

❑ Demo
  - Due date: 2019/5/16 18:30
❑ Help
  - Email to ta@nasa.cs.nctu.edu.tw
    ❑ Don't send email by E3new
  - EC 3F CSCC

Computer Center, CS, NCTU