



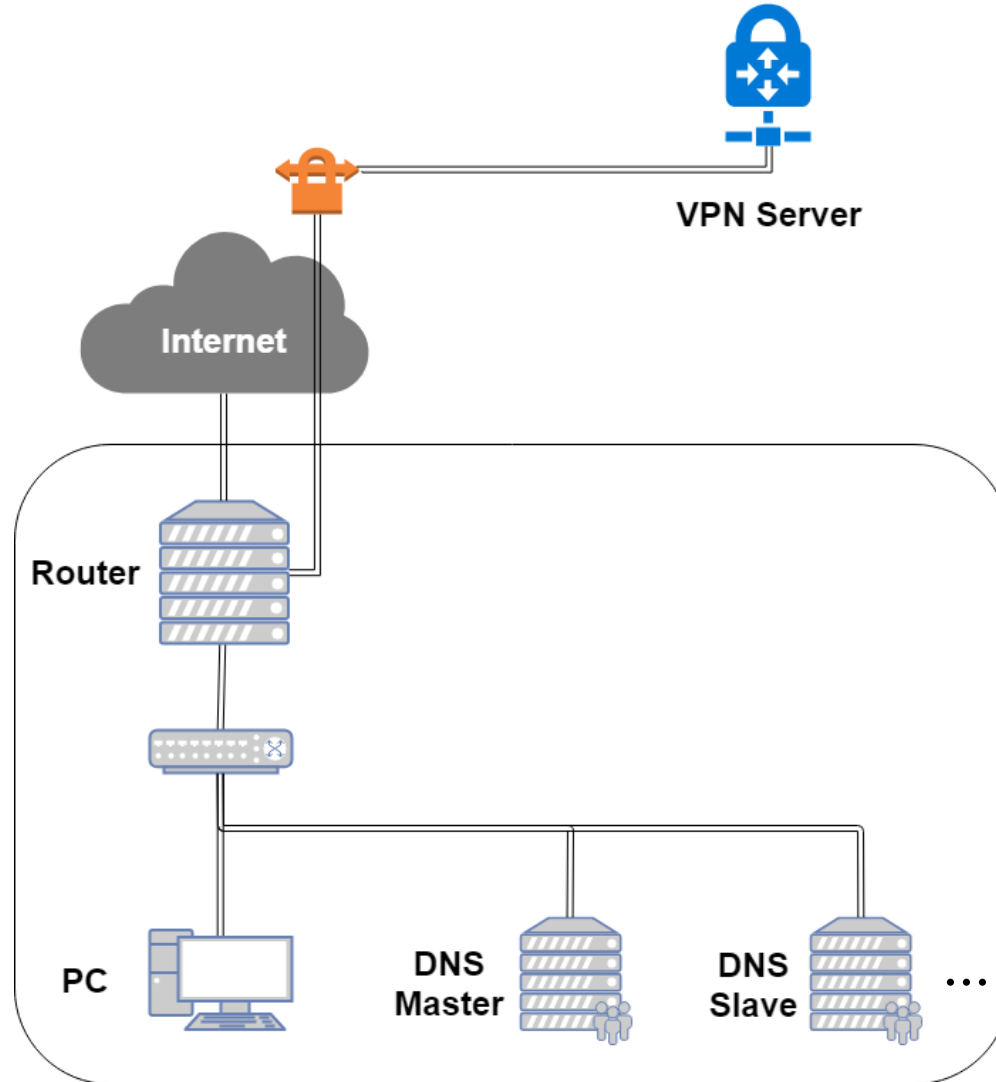
Network Administration HW3

yca

Purpose

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

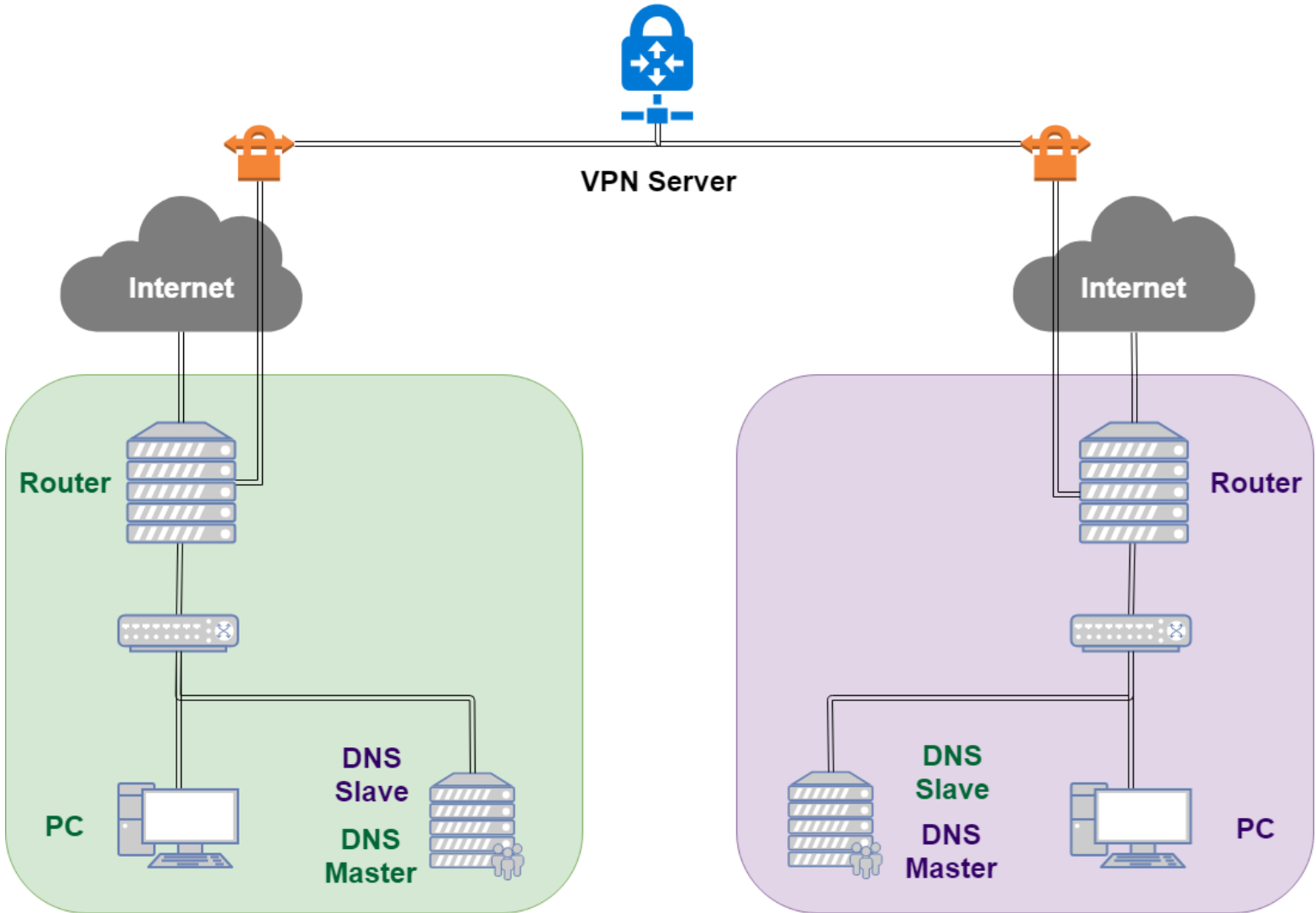
Overview



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.
 - Slave zone for “{student_ID}.nasa.” synchronized from ns1.
 - Updates should be synchronized
 - ✓ SOA must have same Serial number
- ❑ Properly query for zone “nasa.” with 10.113.0.254.
 - You may use slave zone to implement it.
- ❑ 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: 2019/5/30 18:30

❑ Help

- Email to ta@nasa.cs.nctu.edu.tw
 - ✓ Don't send email by E3new
- EC 3F CSCC