



Network Administration HW3

Checkpoints

yca

Overview

- a. **(15%)** Query ns1 (**10.113.x.1**) for A records of the machines in HW[1-3]
 - router.{your_domain}.
 - ns[1-2].{your_domain}.
 - ldap[1-2].{your_domain}.
- b. **(5%)** Check if zone “{your_domain}” is consistent on ns1 and ns2.
- c. **(2%)** Query ns1 for some records of zone “nasa.”
- d. **(3%)** Query ns1 for some records of zone “{someone}.nasa.”
- e. **(10%)** Check zone transfer security.
- f. **(10%)** Check recursion security.

Overview (Cont.)

- g. (5%)** Query ns2 for CNAME records of
 - nasa.{your_domain}.
 - friend.{your_domain}.
- h. (10%)** Query ns1 for A record of view.{your_domain}.
- i. (15%)** Reverse lookup for the IP address we got in part a.
- j. (5%)** Check SSHFP record of your machines' ssh key fingerprint.
- k. (15%)** Check DNSSEC chain of trust from sec.{your_domain}. to {your_domain}.
- l. (5%)** Implement DNSSEC with NSEC3.

Checkpoints a.

- ❑ Query ns1 (**10.113.x.1**) for A records of the machines in HW[1-3]
 - router.{your_domain}
 - ns1.{your_domain}
 - ns2.{your_domain}
 - ldap1.{your_domain}
 - ldap2.{your_domain}
- ❑ `$ dig {domain} @10.113.x.1`

Checkpoints b.

- ❑ Check if zone “{your_domain}” is consistent on ns1 and ns2.
- ❑ `$ dig axfr {your_domain} @ {nameserver}`

Checkpoints c.

- ❑ Query ns1 for some records of zone “nasa.”
- ❑ `$ dig {domain} @10.113.x.1`

Checkpoints d.

- ❑ Query ns1 for some records of zone “{someone}.nasa.”
- ❑ `$ dig {domain} @10.113.x.1`

Checkpoints e.

- ❑ Check zone transfer security.
- ❑ `$ dig axfr {domain} @ {nameserver}`

Checkpoints f.

- ❑ Check recursion security.
- ❑ `$ dig {some_other_thing} @ {nameserver}`

Checkpoints g.

- ❑ Query ns2 for CNAME records of
 - nasa.{your_domain}.
 - friend.{your_domain}.
- ❑ \$ dig {domain}

Checkpoints h.

- ❑ Query ns1 for A record of view.{your_domain}.
- ❑ TA will test on different host and it is expected to get different result for different view.

Checkpoints i.

- ❑ Reverse lookup for the IP address we got in part a.
- ❑ `$ dig -x {IP_address}`

Checkpoints j.

- ❑ Check SSHFP record of your machines' ssh key fingerprint.
- ❑ `$ ssh -o "VerifyHostKeyDNS yes" {domain}`

Checkpoints k.

- ❑ Check DNSSEC chain of trust from `sec.{your_domain}.` to `{your_domain}.`
- ❑ <https://github.com/dnsviz/dnsviz>
- ❑ TA will use same script to check your chain of trust.

Checkpoints 1.

- ❑ Implement DNSSEC with NSEC3.
- ❑ <https://github.com/dnsviz/dnsviz>
- ❑ TA will use same script to check your chain of trust.