



## DNS Spoofing

Have fun with  
domain name

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## What is DNS spoofing?

- DNS spoofing is simply tricking the DNS system into believing your domain name is something other than it really is.

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## Why do we care about it?(1)

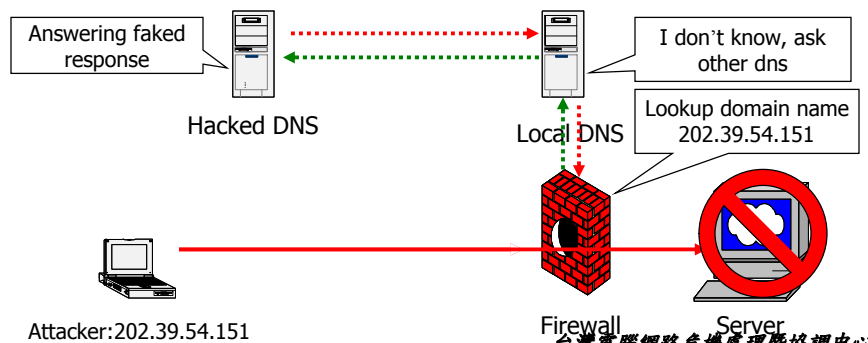
- Bypass your domain name based ACLs, including firewalls.
- Redirect your email, or send a faked email using your domain name.
- Redirect your website to an other, or simply denied.
- Redirect your browser, possible attack and gain access.

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## Why do we care about it?(2)

- Bypass your domain name based ACLs?

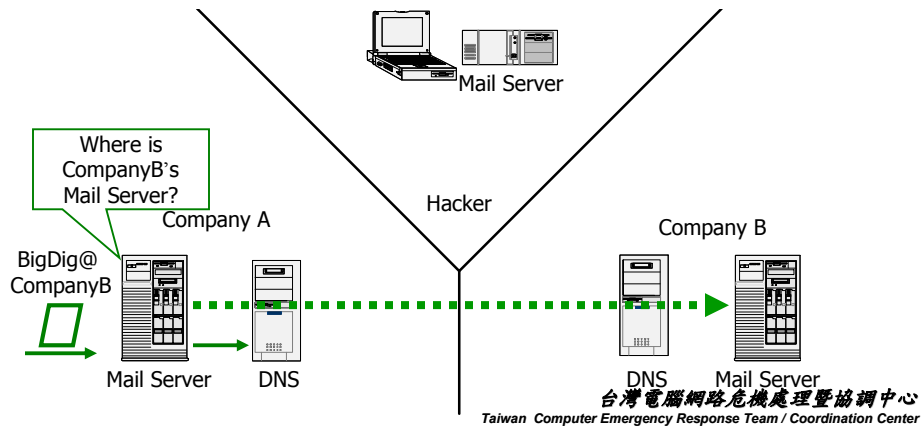


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## TW CERT Why do we care about it?(3)

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### ■ Redirect email?



## TW CERT How is DNS spoofing done?

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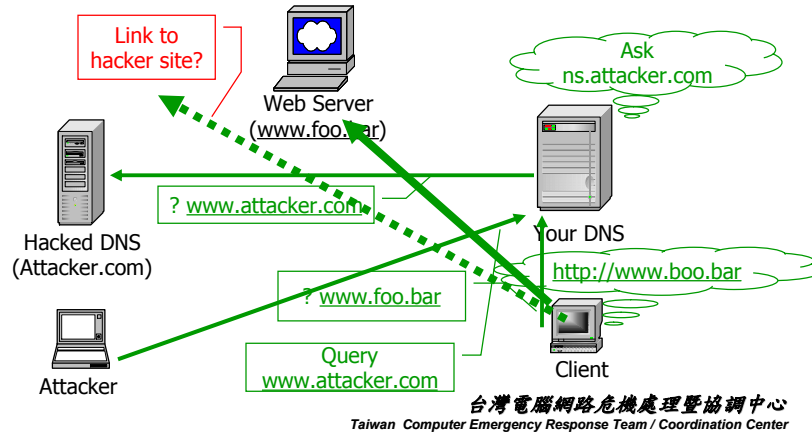
- DNS caching poisoning (additional data)
- DNS caching poisoning (related data)
- DNS ID Prediction
- DNS ID Prediction - Flooding
- Pass through BIND

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## DNS caching poisoning(1)

### ■ DNS caching poisoning



## DNS caching poisoning(2)

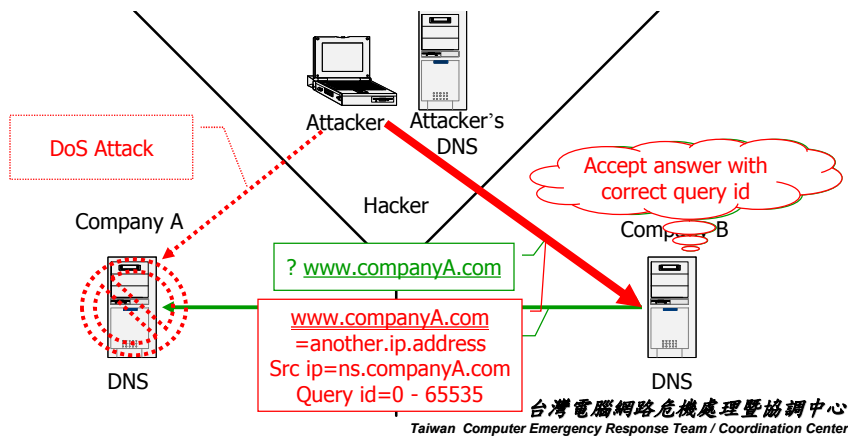
- By additional data
  - A record
- By related data
  - NS record
  - CNAME record
  - MX record



## TW CERT DNS ID Flooding

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### ■ DNS ID Flooding



## TW CERT DNS ID Prediction & Flooding

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- Use latest version of bind
- Bind already patch with randomizes query id
- (Query ID is ONLY 16-bit)
- Enable DNSSEC (bind 9)?
- Use NIDS to detect abnormal DNS queries

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## Pass through the BIND(1)

- Direct CRACK the target DNS Server
- Modify the record you want to response
- Bad information will not be cached by server, but still passes to client

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## Pass through the BIND(2)

- Use latest version of bind
- Config your bind carefully
- Secure you name server (chroot...etc)

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## No discourse with AD?

```
aegis [etc/named]# host -l dellirinaetech.com.tw
dellirinaetech.com.tw. A      61.218.23.2
dellirinaetech.com.tw. A      61.218.23.1
dellirinaetech.com.tw. NS     tiger.dellirinaetech.com.tw.
dellirinaetech.com.tw. NS     dragon.dellirinaetech.com.tw.
gc._msdcs.dellirinaetech.com.tw. A      61.218.23.1
!!! gc._msdcs.dellirinaetech.com.tw A record has illegal name
gc._msdcs.dellirinaetech.com.tw. A      61.218.23.3
!!! gc._msdcs.dellirinaetech.com.tw A record has illegal name
gc._msdcs.dellirinaetech.com.tw. A      61.218.23.2
!!! gc._msdcs.dellirinaetech.com.tw A record has illegal name
Ben.dellirinaetech.com.tw. A      10.1.4.205
chichung.dellirinaetech.com.tw. A      10.1.4.64
dailup.dellirinaetech.com.tw. A      230.31.226.19
dragon.dellirinaetech.com.tw. A      61.218.23.1
eryung.dellirinaetech.com.tw. A      61.218.23.69
Jinay.dellirinaetech.com.tw. A      10.1.4.104
michaelna.dellirinaetech.com.tw. A      163.33.25.25
SEBASTIAN-570B.dellirinaetech.com.tw. A      61.218.23.67
SMITH-X20.dellirinaetech.com.tw. A      61.218.23.68
tiger.dellirinaetech.com.tw. A      61.218.23.1
www.dellirinaetech.com.tw. A      282.381.238.245
aegis [etc/named]#
```

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## Questions?

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