



Cybersecurity

Module 9 Challenge Submission File

In a Network Far, Far Away!

Make a copy of this document to work in, and then for each mission, add the solution below the prompt. Save and submit this completed file as your Challenge deliverable.

Mission 1

1. Mail servers for starwars.com:

```
aspmx.l.google.com  
alt1.aspmx.l.google.com  
alt2.aspmx.l.google.com  
aspmx2.googlemail.com  
aspmx3.googlemail.com
```

2. Explain why the Resistance isn't receiving any emails:

Incorrect DNS settings. The DNS settings have not been properly updated to reflect the new primary and secondary mail servers.

3. Suggested DNS corrections:

To receive emails, the DNS settings for starwars.com need to be updated to reflect the new primary and secondary mail servers. This can be done by updating the MX records in the DNS settings for starwars.com to point to the new servers.

```
starwars.com    MX preference = 1, mail exchanger = asltx.l.google.com
```

starwars.com MX preference = 10, mail exchanger = asltx.2.google.com

Mission 2

1. Sender Policy Framework (SPF) of theforce.net:

```
"v=spf1 a mx a:mail.wise-advice.com mx:smtp.secureserver.net  
include:aspmx.googlemail.com ip4:104.156.250.80 ip4:45.63.15.159  
ip4:45.63.4.215 ip4:104.207.135.156 ~all"
```

2. Explain why the Force's emails are going to spam:

The new IP address of theforce.net's mail server (45.23.176.21) is not listed in their SPF record. This means that some receiving email servers may not trust that emails coming from this new IP address are legitimate and may therefore mark them as spam or even reject them altogether.

3. Suggested DNS corrections:

Ensure that the mail server at IP address 45.23.176.21 is properly configured. Implement DomainKeys Identified Mail and/or Domain-based Message Authentication, reporting & Conformance

Mission 3

1. Document the CNAME records:

www.theforce.net canonical name = theforce.net

2. Explain why the subpage resistance.theforce.net isn't redirecting to theforce.net:

The DNS record for `resistance.theforce.net` is not configured properly

3. Suggested DNS corrections:

Add a CNAME record for `resistance.theforce.net` that points to `www.theforce.net`

Mission 4

1. Confirm the DNS records for `princessleia.site`:

The A record for `princessleia.site` points to two IP addresses:
`34.102.136.180` and `20.40.202.19`.

The MX records for `princessleia.site` shows that the primary name server is `ns25.domaincontrol.com`, and the responsible mail address is `dns.jomax.net`

2. Suggested DNS record corrections to prevent the issue from occurring again:

Setup a secondary DNS server to act as a backup. This would involve configuring the DNS zone for `princessleia.site` to include the backup DNS server as a secondary nameserver, so that if the primary server goes down, the backup can take over and continue serving DNS requests.

Mission 5

1. Document the shortest OSPF path from Batuu to Jedha:

a. OSPF path:

Batuu - Planet D - Planet C - Planet E - Planet F - Planet J - Planet I - Planet M - Planet L - Planet Q - Planet T - Planet V - Jedha

b. OSPF path cost:

Mission 6

1. Wireless key:

dictionary

```
aircrack-ng -w /usr/share/wordlists/rockyou.txt ~/Desktop/Darkside.pcap
```

2. Host IP addresses and MAC addresses:

a. Sender MAC address:

00:0f:66:e3:e4:01

b. Sender IP address:

172.16.0.1

c. Target MAC address:

00:13:ce:55:98:ef

d. Target IP address:

172.16.0.101

Mission 7

1. Screenshot of results:

STAR ASCIMATION WARS

t h e e v i l G a l a c t i c E m p i r e .

D u r i n g t h e b a t t l e , R e b e l
s p i e s m a n a g e d t o s t e a l s e c r e t
p l a n s t o t h e E m p i r e ' s
u l t i m a t e w e a p o n , t h e D E A T H

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Last scene added:
January 2015

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