Packet Tracer – Creating a Cyber World (Instructor Version)

**Instructor Note**: Red font color or gray highlights indicate text that appears in the instructor copy only.

1. Addressing Table

|  |  |  |  |
| --- | --- | --- | --- |
| Device | IP Address | Subnet Mask | Site |
| FTP/Web Server | 10.44.1.254 | 255.255.255.0 | Metropolis Bank HQ |
| Email/DNS Server | 10.44.1.253 | 255.255.255.0 | Metropolis Bank HQ |
| NTP/AAA Server | 10.44.1.252 | 255.255.255.0 | Metropolis Bank HQ |
| File Backup Server | 10.44.2.254 | 255.255.255.0 | Gotham Healthcare Branch |

1. Objectives

**Part 1: Configure the FTP Server**

**Part 2: Configure the Web Server**

**Part 3: Configure the Email Server**

**Part 4: Configure the DNS Server**

**Part 5: Configure the NTP Server**

**Part 6: Configure the AAA Server**

1. Background / Scenario

In this activity, you will configure basic server components. The IP addressing configuration is already complete. You will use the Services tab on multiple servers to deploy FTP, Web, Email, DNS, NTP, and AAA services.

1. Configure the FTP Server
   * 1. Activate the FTP Service.
2. Click the **Metropolis Bank HQ** and then click the **FTP/Web** server.
3. Click the **Services** tab and then click **FTP**.
4. Turn on the FTP service using the radial button at the top.
   * 1. Allow users’ access to the FTP server.
5. Create user account names of **bob**, **mary**, and **mike**, each with the password of **cisco123**.
6. Each user account should have full permissions (RWDNL) on the FTP/Web server.
7. Configure the Web Server
   * 1. Activate the HTTP Service.
8. Within the **Metropolis Bank HQ**, click the **FTP/Web** server.
9. Click the **Services** tab and then click **HTTP**.
10. Turn on both the HTTP and HTTPS services using the radial buttons at the top.
    * 1. Verify the HTTP Service.
11. Click the PC named Sally, and click the **Desktop** tab.
12. Click the **Web Browser**. Browse to the website **www.cisco.corp**.
13. Within the Web Browser, browse to the IP **10.44.1.254**.

Why would a user be able to browse to an IP address but not a FQDN?

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The web browser does not know IP address without DNS to translate the domain name to the IP address.

1. Configure the DNS Server
   * 1. Activate the DNS Service.
2. Within the **Metropolis Bank HQ**, click the **Email/DNS** server.
3. Click the **Services** tab and then click **DNS**.
4. Turn on the DNS service using the radial button at the top.
   * 1. Create the DNS A records.
5. Create the **A** record **email.cisco.corp** with IP address **10.44.1.253**. Click **Add** to save the record.
6. Create the **A** record **www.cisco.corp** with IP address **10.44.1.254**. Click **Add** to save the record.
   * 1. Verify the DNS Service.
7. Click the PC named Sally, and click the **Desktop** tab.
8. Click the **Web Browser**. Browse to the website **www.cisco.corp**.

Why is the user able to browse to an FQDN?

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The DNS server translated the domain name to the associated IP address so the web browser can understand it.

1. Configure the Email Server
   * 1. Activate the Email Services.
2. Within the **Metropolis Bank HQ**, click the **Email/DNS** server.
3. Click the **Services** tab and then click on **EMAIL**.
4. Turn on both the SMTP and POP3 services using the radial buttons at the top.
   * 1. Create Email accounts for users.
5. Create the domain name of **cisco.corp**.
6. Create user account names of **phil**, **sally**, **bob**, **dave**, **mary**, **tim** and **mike,** each with the password of **cisco123**.
   * 1. Configure user Email clients.
7. Click the PC named **Sally**, and click the **Desktop** tab.
8. Click **Email** and enter the following information:

Name: **Sally**

Email Address: **sally@cisco.corp**

Incoming & Outgoing Email Server(s): **email.cisco.corp**

Username: **sally**

Password: **cisco123**

1. Repeat Step **3b** on the PC named **Bob** but replace the name **sally** with **bob** as needed.

Why does the Email service require both SMTP and POP3 to be activated?

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SMTP is the protocol responsible for sending emails between servers, and POP is a protocol used by local email clients to retrieve emails from a server.

1. Configure the NTP Server
   * 1. Activate the NTP Service.
2. Within the **Metropolis Bank HQ**, click the **NTP/AAA** server.
3. Click the **Services** tab and then click **NTP**.
4. Turn on the NTP service using the radial button at the top.
   * 1. Secure the NTP Service.
5. Enable the NTP authentication feature using the radial button.
6. Configure **Key 1** with a password of **cisco123**.
7. Configure the AAA Server
   * 1. Activate the AAA Service.
8. Within the **Metropolis Bank HQ**, click the **NTP/AAA** server.
9. Click the **Services** tab and then click **AAA**.
10. Turn on the AAA service using the radial button at the top.
    * 1. Configure the AAA Network Configuration.
11. Configure the Client Name **HQ\_Router** with the Client IP **10.44.1.1** with a secret of **cisco123**. Click **Add** to save the client information.
12. Configure the AAA user account of **admin** with a password of **cisco123**. Click **Add** to save the user information.
13. Suggested Scoring Rubric

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| --- | --- | --- | --- |
| Activity Section | Question Location | Possible Points | Earned Points |
| Part 2: Configure the Web Server | Step 2 | 2 |  |
| Part 3: Configure the DNS Server | Step 3 | 2 |  |
| Part 4: Configure the Email Server | Step 3 | 2 |  |
| **Questions** | | **6** |  |
| **Packet Tracer Score** | | **94** |  |
| **Total Score** | | **100** |  |