2. Routing & VPN

Introduction

**Objective:**

You will learn to configure:

Routing

VPN Connection between Paris and Lyon Network

**Login**

The login credential for all server and client machines:

Username: Administrator / user

Password: Skill39@Lyon

**Network Topology**

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| This will be the network topology that will be referenced for setting up the infrastructure. |
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# Install RRAS

Do this on the following machines:

PARIS-ROUTER

LA-ROUTER

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| LYON-ROUTER |
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Repeat on LA-ROUTER and LYON-ROUTER.

# Configure RRAS

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| Click Deploy VPN only |
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| Right click on PARIS-ROUTER and Click Configure and Enable Routing and Remote Access. |
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Go through the wizard and start the service. Repeat for LA-ROUTER and LYOn-ROUTER.

**Test**

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| After RRAS is up, ping LYON-ROUTER from PARIS-ROUTER and vice versa. The pings should be successful. |
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# VPN

After routing is up and PARIS-ROUTER and LYON-ROUTER can ping each other, we can set up VPN to allow the routers to reach the private network of one another. This means that PARIS-ROUTER will be able to reach 10.40.0.0/24 network and LYON-ROUTER will be able to reach 10.10.0.0/24, 10.20.0.0/24 and 10.30.0.0/24 networks. Use the following information:

1. Set up a IKEv2 IPsec Site-to-Site VPN tunnel between the locations PARIS and LYON using the machines PARISROUTER and LYON-ROUTER.

Named interface: IKEv2

Username: Administrator

Domain: PARIS

Password: Skill39@Lyon

Pre-Shared-Key: AllTooWell13@

Set Persistent Connection

2. Make sure that all subnets in PARIS can reach the network in LYON and vice versa.

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| In RRAS, go to network interfaces and right click on an empty space to add new demand dial-in interface. The steps below are done on PARIS-ROUTER. |
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| Name the interface as LYON-ROUTER (the router that we are connecting to) |
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| Enter the public IP address of LYON-ROUTER. |
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| Right click on the interface to edit the properties. |
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| In the options tab, select persistent connection. |
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| In the security tab, use preshared key: AllTooWell13@ |
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Click ok and repeat the above steps in LYON-ROUTER.

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| When configuring the destination address, change the address to the public address of PARIS-ROUTER. |
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| Add the three remote networks so that LYON-ROUTER can reach them. |
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| After setting up the interface on both routers, right click on the interface and click connect. |
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**Test**

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| Once the connection state is connected, use traceroute to verify that VPN is working. |
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