IMPACTA– Curso: Ciência da Computação

Redes de Computadores – Professor: Rodolfo Riyoei Goya

AC 2 – Endereçamento IP

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1. Quantas redes há no diagrama: **8 redes**
2. Identifique as redes deste diagrama:

|  |  |
| --- | --- |
| **Rede** | **Hosts** |
| **SPO-1** | **55** |
| **SPO-2** | **9** |
| **BHE** | **25** |
| **RJO** | **75** |
| **RTA – RTB** | **2** |
| **RTA – RTD** | **2** |
| **RTB – RTC** | **2** |
| **RTC – RTD** | **2** |

1. Defina as máscaras para cada rede:

|  |  |  |
| --- | --- | --- |
| **Rede** | **Hosts** | **Máscara** |
| **SPO-1** | **55** | **/26** |
| **SPO-2** | **9** | **/28** |
| **BHE** | **25** | **/27** |
| **RJO** | **75** | **/25** |
| **RTA – RTB** | **2** | **/30** |
| **RTA – RTD** | **2** | **/30** |
| **RTB – RTC** | **2** | **/30** |
| **RTC – RTD** | **2** | **/30** |

1. Defina os endereços de rede de todas as redes deste diagrama

|  |  |  |
| --- | --- | --- |
| **Rede** | **Endereço** | **Máscara** |
| **RJO** | **10.1.0.0/25** | **255.255.255.128** |
| **SPO-1** | **10.1.0.128/26** | **255.255.255.192** |
| **BHE** | **10.1.0.192/27** | **255.255.255.224** |
| **SPO-2** | **10.1.0.224/28** | **255.255.255.240** |
| **RTA – RTB** | **10.1.0.240/30** | **255.255.255.252** |
| **RTA – RTD** | **10.1.0.244/30** | **255.255.255.252** |
| **RTB – RTC** | **10.1.0.248/30** | **255.255.255.252** |
| **RTC – RTD** | **10.1.0.252/30** | **255.255.255.252** |

1. Defina os endereços de todas as interfaces de roteadores deste diagrama

|  |  |
| --- | --- |
| **Interface** | **Endereço** |
| **RTA-E0** | **10.1.0.225/28** |
| **RTA-E1** | **10.1.0.241/30** |
| **RTA-S2** | **10.1.0.245/30** |
| **RTB-E0** | **10.1.0.129/26** |
| **RTB-E1** | **10.1.0.242/30** |
| **RTB-S2** | **10.1.0.249/30** |
| **RTC-E0** | **10.1.0.193/27** |
| **RTC-S1** | **10.1.0.250/30** |
| **RTC-S2** | **10.1.0.253/30** |
| **RTD-E0** | **10.1.0.1/25** |
| **RTD-S1** | **10.1.0.254/30** |
| **RTD-S2** | **10.1.0.246/30** |

1. Defina a configuração IP da primeira estação de cada rede

|  |  |  |  |
| --- | --- | --- | --- |
| **Estação** | **Endereço** | **Máscara** | **Gateway** |
| **RJO** | **10.1.0.2** | **255.255.255.128** | **10.1.0.1** |
| **SPO-1** | **10.1.0.130** | **255.255.255.192** | **10.1.0.129** |
| **SPO-2** | **10.1.0.226** | **255.255.255.240** | **10.1.0.225** |
| **BHE** | **10.1.0.194** | **255.255.255.224** | **10.1.0.193** |

1. Defina a tabela de rotas de cada roteador

**RTA**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/25** | **10.1.0.246** |
| **10.1.0.128/26** | **10.1.0.242** |
| **10.1.0.192/27** | **10.1.0.242** |
| **10.1.0.248/30** | **10.1.0.242** |
| **10.1.0.252/30** | **10.1.0.246** |

**RTB**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/25** | **10.1.0.241** |
| **10.1.0.192/27** | **10.1.0.250** |
| **10.1.0.224/28** | **10.1.0.241** |
| **10.1.0.244/30** | **10.1.0.241** |
| **10.1.0.252/30** | **10.1.0.250** |

**RTC**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/25** | **10.1.0.254** |
| **10.1.0.128/26** | **10.1.0.249** |
| **10.1.0.224/28** | **10.1.0.249** |
| **10.1.0.240/30** | **10.1.0.249** |
| **10.1.0.244/30** | **10.1.0.254** |

**RTD**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.128/26** | **10.1.0.245** |
| **10.1.0.192/27** | **10.1.0.253** |
| **10.1.0.224/28** | **10.1.0.245** |
| **10.1.0.240/30** | **10.1.0.245** |
| **10.1.0.248/30** | **10.1.0.253** |

1. Acrescente uma rota em cada roteador para dar tolerância a falhas

**RTA**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/24** | **10.1.0.242** |
| **10.1.0.128/25** | **10.1.0.246** |
| **10.1.0.192/26** | **10.1.0.246** |
| **10.1.0.248/29** | **10.1.0.246** |
| **10.1.0.252/29** | **10.1.0.242** |

**RTB**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/24** | **10.1.0.250** |
| **10.1.0.192/26** | **10.1.0.241** |
| **10.1.0.224/27** | **10.1.0.250** |
| **10.1.0.244/29** | **10.1.0.250** |
| **10.1.0.252/29** | **10.1.0.241** |

**RTC**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.0/24** | **10.1.0.249** |
| **10.1.0.128/25** | **10.1.0.254** |
| **10.1.0.224/27** | **10.1.0.254** |
| **10.1.0.240/29** | **10.1.0.254** |
| **10.1.0.244/29** | **10.1.0.249** |

**RTD**

|  |  |
| --- | --- |
| **Rede** | **Next Hop** |
| **10.1.0.128/25** | **10.1.0.253** |
| **10.1.0.192/26** | **10.1.0.245** |
| **10.1.0.224/27** | **10.1.0.253** |
| **10.1.0.240/29** | **10.1.0.253** |
| **10.1.0.248/29** | **10.1.0.245** |