Universidade Fernando Pessoa

Mestrado em Computação Móvel

Redes e Serviços de Comunicações Móveis II

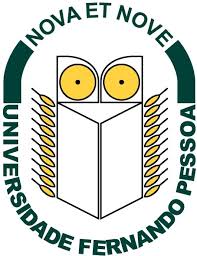
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Ficha de Trabalho nº 4

LISP – Topologia GNS3

Porto

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# LISP parte 1

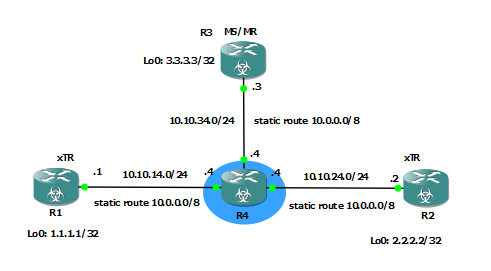


Figura – Topologia LISP\_part\_1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Máquina** | **Tipo** | **Interface** | **Lo0** | **Endereços** |
| R1\_xTR | Router | G0/0 | 1.1.1.1 | 10.10.14.1/24 |
| R2\_xTR | G0/0 | 2.2.2.2 | 10.10.24.2/24 |
| R3\_MS\_MR | G0/0 |  | 10.10.34.3/24 |
| R4\_Underlay | G0/0 | 10.10.14.4/24 |
| G0/1 | 10.10.24.4/24 |
| G0/2 | 10.10.34.4/24 |

## Configurações

### Router 1 (xTR)

en

conf t

hostname R1\_xTR

int lo0

ip address 1.1.1.1 255.255.255.255

exit

int g0/0

ip address 10.10.14.1 255.255.255.0

no shut

ip route 10.0.0.0 255.0.0.0 10.10.14.4

router lisp

database-mapping 1.1.1.0/24 10.10.14.1 priority 1 weight 100

ipv4 itr

ipv4 itr map-resolver 10.10.34.3

ipv4 etr

ipv4 etr map-server 10.10.34.3 key tut\_siteA

end

wr

### Router 2 (xTR)

en

conf t

hostname R2\_xTR

int g0/0

ip address 10.10.24.2 255.255.255.0

no shut

int lo0

ip address 2.2.2.2 255.255.255.255

exit

ip route 10.0.0.0 255.0.0.0 10.10.24.4

router lisp

database-mapping 2.2.2.0/24 10.10.24.2 priority 1 weight 100

ipv4 itr

ipv4 itr map-resolver 10.10.34.3

ipv4 etr

ipv4 etr map-server 10.10.34.3 key tut\_siteB

end

wr

### Router 3 (MS/MR)

### en

conf t

hostname R3\_MS\_MR

int g0/0

ip address 10.10.34.3 255.255.255.0

no shut

ip route 10.0.0.0 255.0.0.0 10.10.34.4

lisp site siteA

eid-prefix 1.1.1.0/24

authentication-key tut\_siteA

lisp site siteB

eid-prefix 2.2.2.0/24

authentication-key tut\_siteB

ip lisp map-server

ip lisp map-resolver

end

wr

### Router 4 (Underlay)

en

conf t

hostname R4\_Underlay

int g0/0

ip address 10.10.14.4 255.255.255.0

no shut

int g0/1

ip address 10.10.24.4 255.255.255.0

no shut

int g0/2

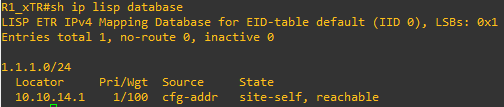
ip address 10.10.34.4 255.255.255.0

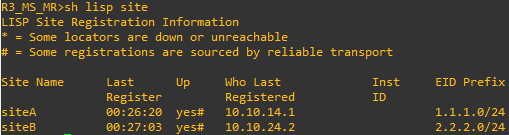
no shut

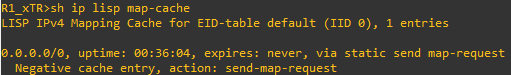
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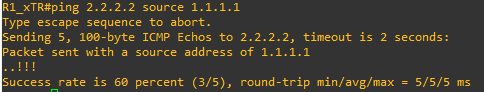
wr

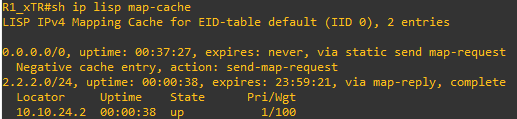
## Prints



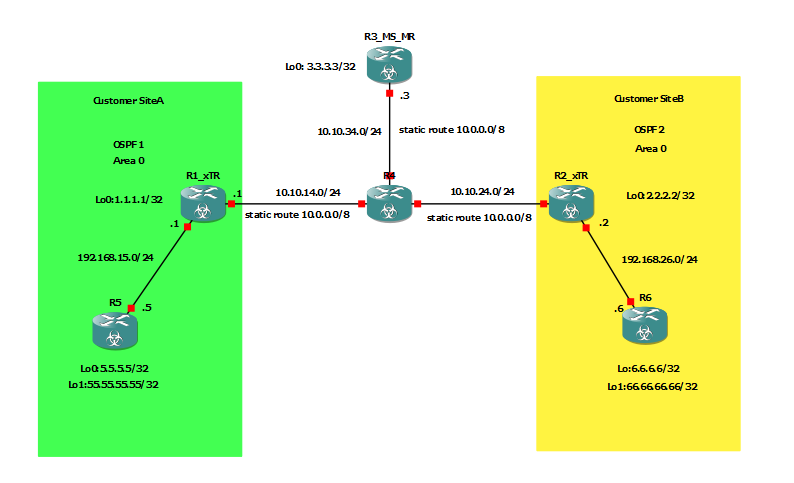








# LISP parte 2



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Máquina** | **Tipo** | **Interface** | **Lo0** | **Lo1** | **Endereços** |
| R1\_xTR | Router | G0/0 | 1.1.1.1 |  | 10.10.14.1/24 |
| G0/1 | 192.168.15.1 |
| R2\_xTR | G0/0 | 2.2.2.2 | 10.10.24.2/24 |
| G0/1 | 192.168.26.2/24 |
| R3\_MS\_MR | G0/0 |  | 10.10.34.3/24 |
| R4\_Underlay | G0/0 | 10.10.14.4/24 |
| G0/1 | 10.10.24.4/24 |
| G0/2 | 10.10.34.4/24 |
| R5 | G0/0 | 5.5.5.5 | 55.55.55.55.55 | 192.168.15.5/24 |
| R6 | G0/0 | 6.6.6.6 | 66.66.66.66 | 192.168.26.6/24 |

## Configurações

### R1 (xTR)

en

conf t

hostname R1\_xTR

int lo0

ip address 1.1.1.1 255.255.255.255

exit

int g0/0

ip address 10.10.14.1 255.255.255.0

no shut

interface g0/1

ip address 192.168.15.1 255.255.255.0

no shut

exit

ip route 10.0.0.0 255.0.0.0 10.10.14.4

router ospf 1

network 192.168.15.0 0.0.0.255 area 0

default-information originate always

exit

router lisp

database-mapping 1.1.1.0/24 10.10.14.1 priority 1 weight 100

database-mapping 5.5.5.0/24 10.10.14.1 priority 1 weight 100

database-mapping 55.55.55.55/32 10.10.14.1 priority 1 weight 100

database-mapping 192.168.15.0/24 10.10.14.1 priority 1 weight 100

ipv4 itr

ipv4 itr map-resolver 10.10.34.3

ipv4 etr

ipv4 etr map-server 10.10.34.3 key tut\_siteA

end

wr

### R2 (xTR)

en

conf t

hostname R2\_xTR

int g0/0

ip address 10.10.24.2 255.255.255.0

no shut

interface g0/1

ip address 192.168.26.2 255.255.255.0

no shut

exit

int lo0

ip address 2.2.2.2 255.255.255.255

exit

ip route 10.0.0.0 255.0.0.0 10.10.24.4

router ospf 1

network 192.168.26.0 0.0.0.255 area 0

default-information originate always

exit

router lisp

database-mapping 2.2.2.0/24 10.10.24.2 priority 1 weight 100

database-mapping 6.6.6.0/24 10.10.24.2 priority 1 weight 100

database-mapping 66.66.66.66/32 10.10.24.2 priority 1 weight 100

database-mapping 192.168.26.0/24 10.10.24.2 priority 1 weight 100

ipv4 itr

ipv4 itr map-resolver 10.10.34.3

ipv4 etr

ipv4 etr map-server 10.10.34.3 key tut\_siteB

end

wr

### Router 3 (MS/MR)

en

conf t

hostname R3\_MS\_MR

int g0/0

ip address 10.10.34.3 255.255.255.0

no shut

ip route 10.0.0.0 255.0.0.0 10.10.34.4

lisp site siteA

eid-prefix 1.1.1.0/24

eid-prefix 5.5.5.0/24

eid-prefix 55.55.55.55/32

eid-prefix 192.168.15.0/24

authentication-key tut\_siteA

exit

lisp site siteB

eid-prefix 2.2.2.0/24

eid-prefix 6.6.6.0/24

eid-prefix 66.66.66.66/32

eid-prefix 192.168.26.0/24

authentication-key tut\_siteB

exit

ip lisp map-server

ip lisp map-resolver

end

wr

### Router 4 (Underlay)

en

conf t

hostname R4\_Underlay

int g0/0

ip address 10.10.14.4 255.255.255.0

no shut

int g0/1

ip address 10.10.24.4 255.255.255.0

no shut

int g0/2

ip address 10.10.34.4 255.255.255.0

no shut

end

wr

### Router 5

en

conf t

hostname R5

interface g0/0

ip address 192.168.15.5 255.255.255.0

no shut

exit

int lo0

ip address 5.5.5.5 255.255.255.255

exit

int lo1

ip address 55.55.55.55 255.255.255.255

exit

router ospf 1

network 192.168.15.0 0.0.0.255 area 0

network 5.5.5.5 0.0.0.0 area 0

network 55.55.55.55 0.0.0.0 area 0

end

wr

### Router 6

en

conf t

hostname R6

interface g0/0

ip address 192.168.26.6 255.255.255.0

no shut

exit

int lo0

ip address 6.6.6.6 255.255.255.255

exit

int lo1

ip address 66.66.66.66 255.255.255.255

exit

router ospf 1

network 192.168.26.0 0.0.0.255 area 0

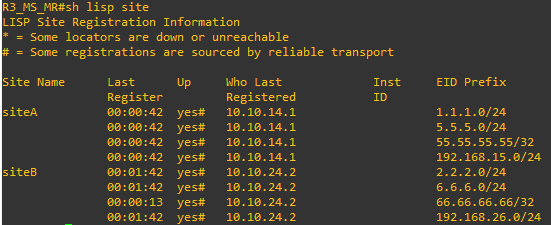
network 6.6.6.6 0.0.0.0 area 0

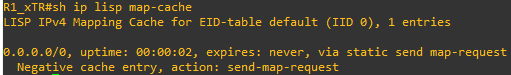
network 66.66.66.66 0.0.0.0 area 0

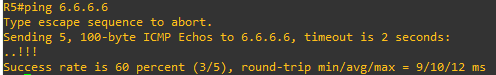
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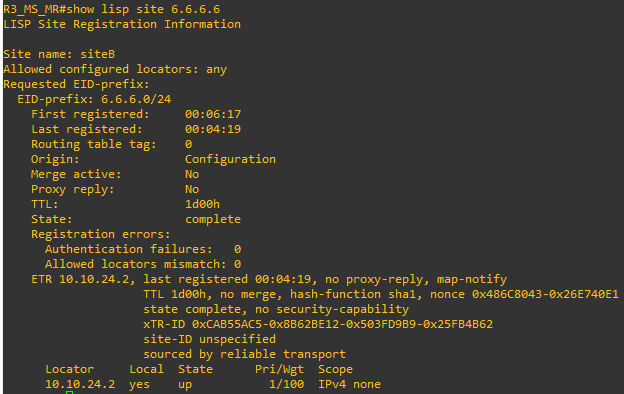
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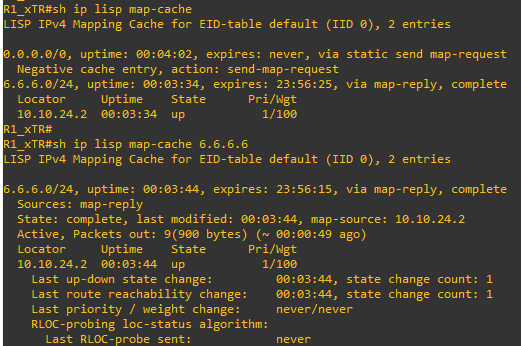
## Prints











# LISP IPV6 Parte 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Máquina** | **Tipo** | **Interface** | **Lo0** | **Endereços** |
| R1\_xTR | Router | G0/0 | 2001:DB8:1::1/32 | 2001:DB8:14::1/64 |
| R2\_xTR | G0/0 | 2001:DB8:2::2/32 | 2001:DB8:24::2/64 |
| R3\_MS\_MR | G0/0 |  | 2001:DB8:34::3/64 |
| R4\_Underlay | G0/0 | 2001:DB8:14::4/64 |
| G0/1 | 2001:DB8:24::4/64 |
| G0/2 | 2001:DB8:34::4/64 |