
Internet Service Provider ARA Project

UNIVERSIDADE DE AVEIRO

DIOGO SILVA 60337
EDUARDO 68633

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Arquitectura de Redes Avançada
Universidade de Aveiro

Diogo Silva 60337 Eduardo Sousa 68633

January 5, 2016

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Chapter 1

Basic Mechanisms and BGP

1.1 Internal BGP & OSPF Redistribution

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1.2 External BGP

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1.3 Private AS

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1.4 Routing Constraints

Neste projecto todas as restrições de routing apresentadas a seguir foram efectuadas usando route-map para efectuar a respectiva regra, ou negar a rota, ou aumentar a local preference da rede anunciada no iBGP.

1.4.1 Internet Traffic

“IP traffic towards Internet should be preferably routed via ISP S (Lisboa).”

```
ip router bgp 9.345
network yolo
  test abc
  asd aw 0400
!
```

1.4.2 Net L1 and Net L2 Preferences

“IP traffic towards netL1 and netL2, should be preferably routed via Porto from Aveiro, and via Lisboa from Faro.”
asd

1.4.3 SIP Proxy 2 Traffic

“IP traffic for remote SIP proxy 2 (to network netS1) should be routed only via Lisboa using the direct peering link to ISP S.”

asd

1.4.4 Non-Transit ISP-X

1.5 Changes for IPv6

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Chapter 2

MPLS

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2.1 MPLS Tunnel for SIP Traffic

2.2 MPLS VPN

Chapter 3

VoIP SIP

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3.1 Internal Extensions

3.2 PTSN Calls Support

3.3 Forward to SIP Proxy 2