Communication Networks
This Exercise Session

Overview of the current assignment

Tips routing project

Solve theoretical questions and/or routing project

Solutions will be published next week
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Task 6.1: Traffic Engineering

ETH only wants to use the cheapest provider

Inbound traffic engineering
Task 6.2: Convergence

Does this network converge?

No customer-provider or peer-to-peer policies
Task 6.3: Not-so-reliable Internet

Same network, but with policies and link failure

What BGP messages do ASes exchange when?
UPDATE, WITHDRAW, …
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Useful commands

After each route-map change: clear ip bgp *

List all routes matching a specific route-map:
show ip bgp route-map <NAME>

Routes with a specific community-value:
show ip bgp community <A:B>
Please note

Your own prefix should be advertised to **all** neighbors even if you implement policies.

Use the advertisements of the stub ASes to test your configuration for question 3.2.

If you cannot show something due to problems of your neighbors, note it in the report (no influence on your grade).
For question 3.1 have a look at the lecture slides
Influence inbound and outbound traffic

Inbound

Outbound

Your AS

Neighbor AS

eBGP session
Influence inbound and outbound traffic

Inbound

Outbound

Traffic

BGP advertisements
Influence inbound and outbound traffic

Inbound

Outbound

Traffic

BGP advertisements
Influence inbound and outbound traffic

Route-maps can only influence the advertisements!
Influence inbound and outbound traffic

Route-maps can only influence the advertisements!

Full control only over **outbound** traffic!
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