

small internet

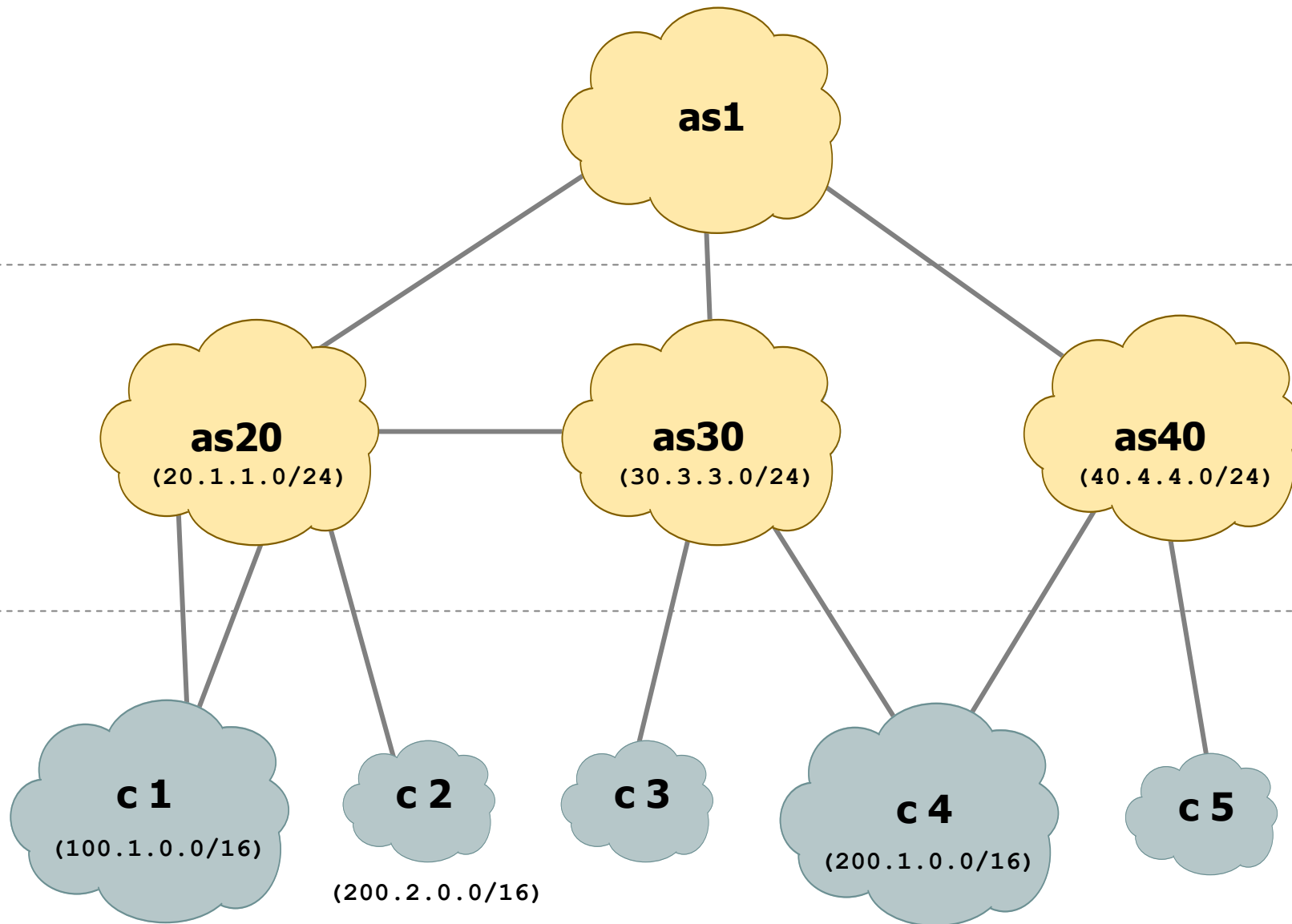
netkit-lab\_bgp-9-small-internet

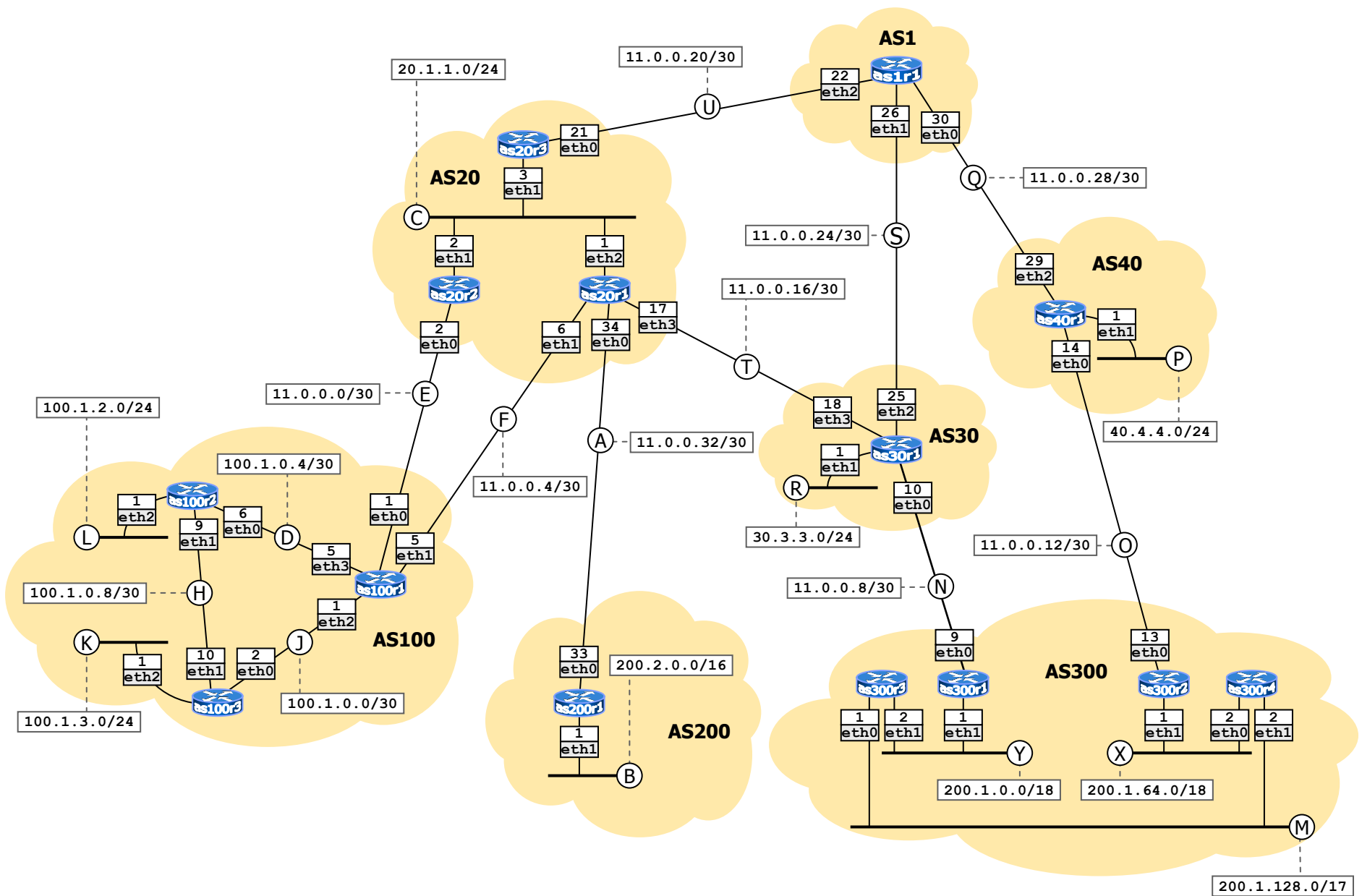
# providers

backbone

provider

customer





# router as20r1 configuration

zebra bgp configuration file

```
router bgp 20
network 20.1.1.0/24
network 11.0.0.4/30
network 11.0.0.16/30
network 11.0.0.32/30
!
neighbor 11.0.0.33 remote-as 200
neighbor 11.0.0.33 description Router as200r1
neighbor 11.0.0.33 default-originate
neighbor 11.0.0.33 prefix-list as200In in
neighbor 11.0.0.33 prefix-list defaultOut out
!
... next slide
```

# router as20r1 configuration

zebra bgp configuration file

```
neighbor 11.0.0.5 remote-as 100
neighbor 11.0.0.5 description Router as100r1
neighbor 11.0.0.5 default-originate
neighbor 11.0.0.5 prefix-list as100In in
neighbor 11.0.0.5 prefix-list defaultOut out
!
neighbor 20.1.1.2 remote-as 20
neighbor 20.1.1.2 description Router as20r2 (iBGP)
!
neighbor 20.1.1.3 remote-as 20
neighbor 20.1.1.3 description Router as20r3 (iBGP)
... next slide
```

# router as20r1 configuration

—zebra bgp configuration file—

```
neighbor 11.0.0.18 remote-as 30
neighbor 11.0.0.18 description Router as30r1 (eBGP)
neighbor 11.0.0.18 default-originate route-map dontUseMe
neighbor 11.0.0.18 route-map dontUseMe out
neighbor 11.0.0.18 prefix-list defaultOut out
!
ip prefix-list as200In permit 200.2.0.0/16
ip prefix-list as100In permit 100.1.0.0/16
ip prefix-list defaultOut permit 0.0.0.0/0
!
route-map dontUseMe permit 10
set as-path prepend 20 20 20
```

# policy tools

- local preference
  - tunes outbound traffic flows
- metric (med)
  - tunes inbound traffic flows (local scope)
- as-path prepend
  - tunes inbound traffic flows (Internet scope)