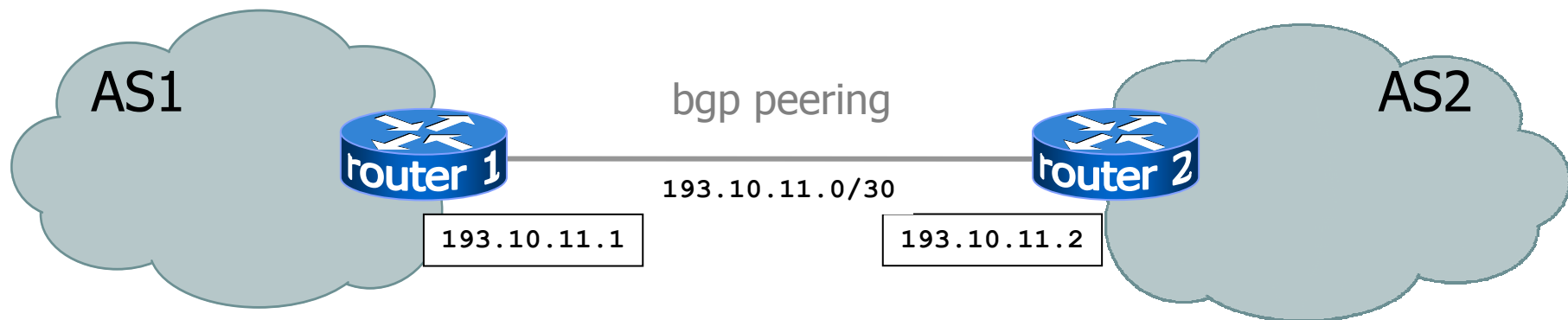


simple peering

netkit-lab_bgp-1-simple-peering

a bgp peering between two ases

- bgp allows routers to exchange information only if a peering session is up
- a bgp peering is the tcp connection over which routing information will be exchanged



peering configuration commands

command syntax

```
! <a-comment-on-a-single-line>
```

command syntax

```
router bgp <my-as-number>
```

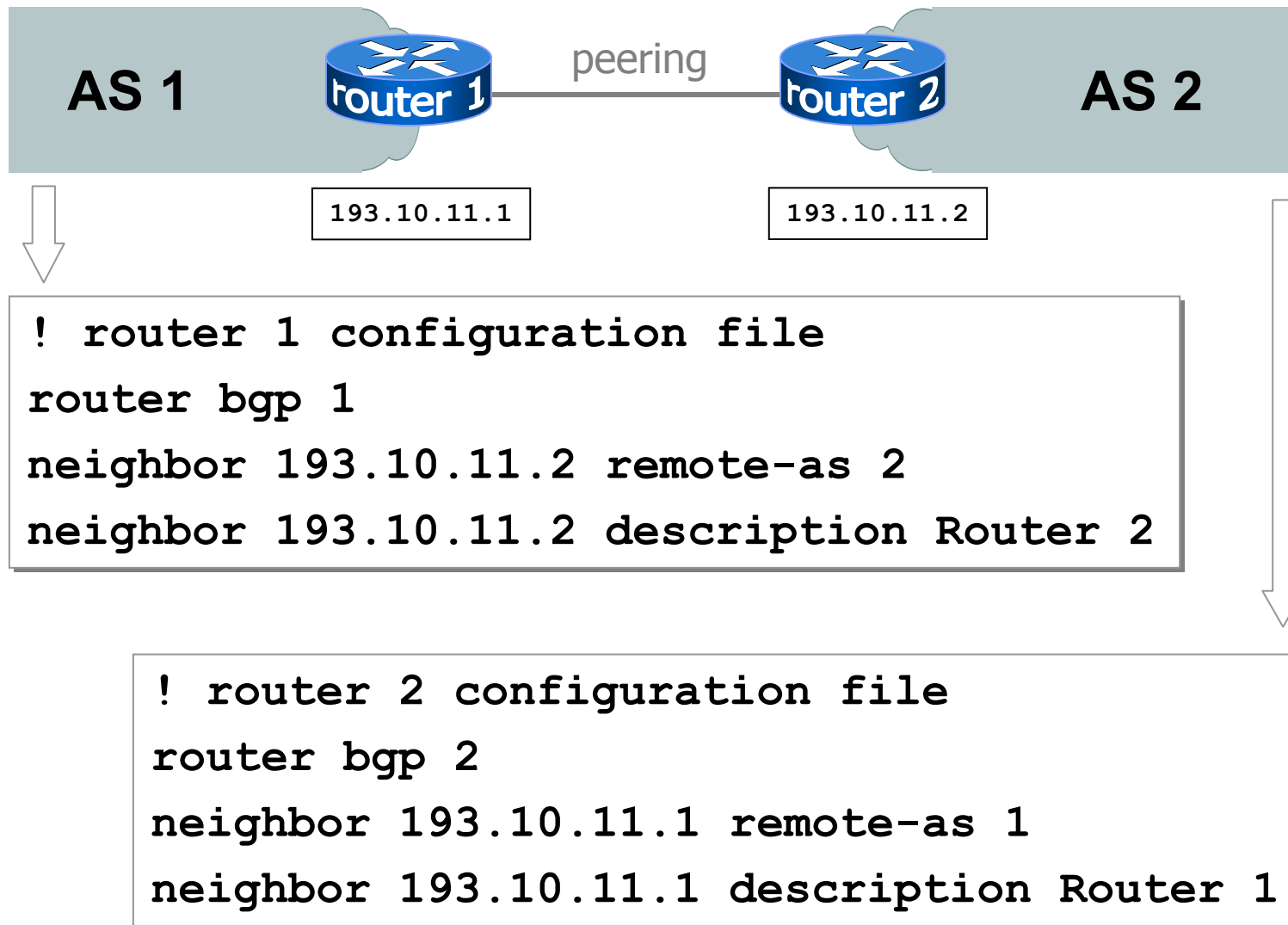
command syntax

```
neighbor <neighbor-ip> remote-as <neighbor-as-num>
```

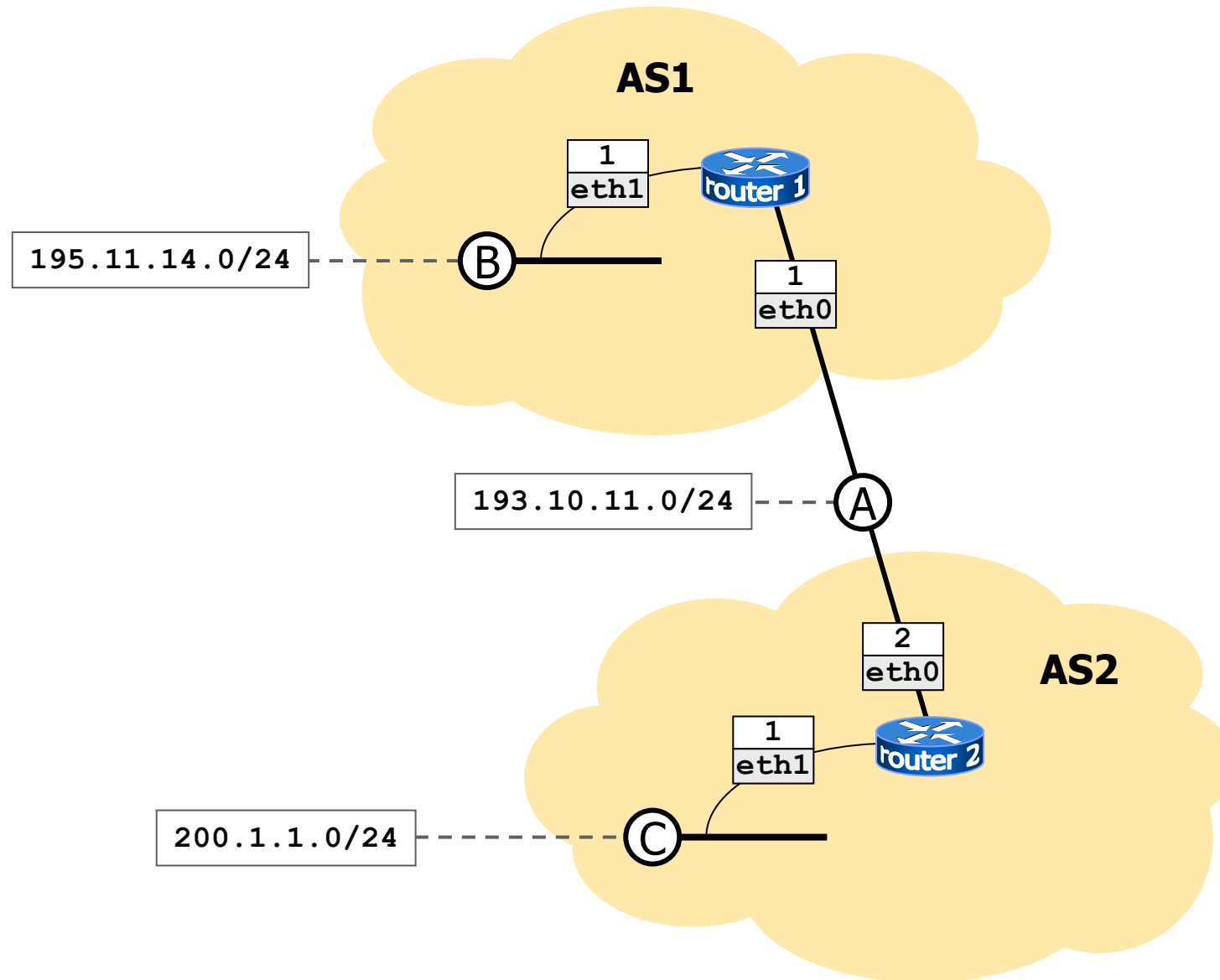
command syntax

```
neighbor <neighbor-ip> description <text>
```

peering configuration example

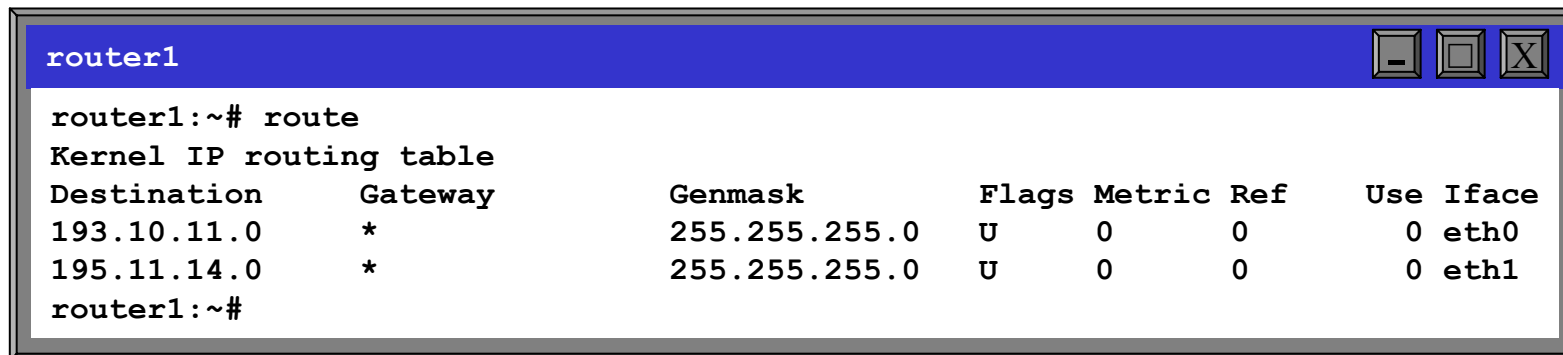


a simple peering



a simple peering

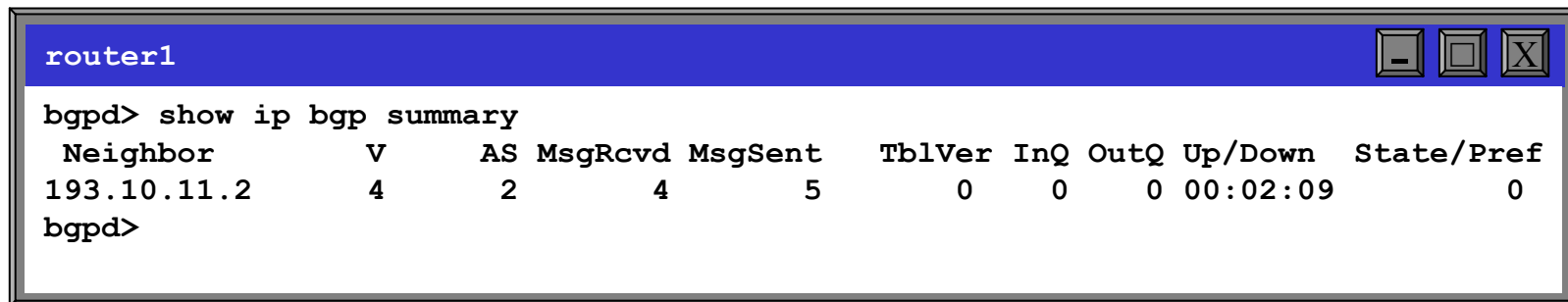
- launch the script
 - type `lstart netkit-lab_bgp-1-simple-peering`
- check bgpd configuration file
 - type `more /etc/zebra/bgpd.conf`
- check the routing table
 - type `route`



```
router1
router1:~# route
Kernel IP routing table
Destination      Gateway         Genmask         Flags Metric Ref    Use Iface
193.10.11.0      *               255.255.255.0   U        0      0        0 eth0
195.11.14.0      *               255.255.255.0   U        0      0        0 eth1
router1:~#
```

a simple peering

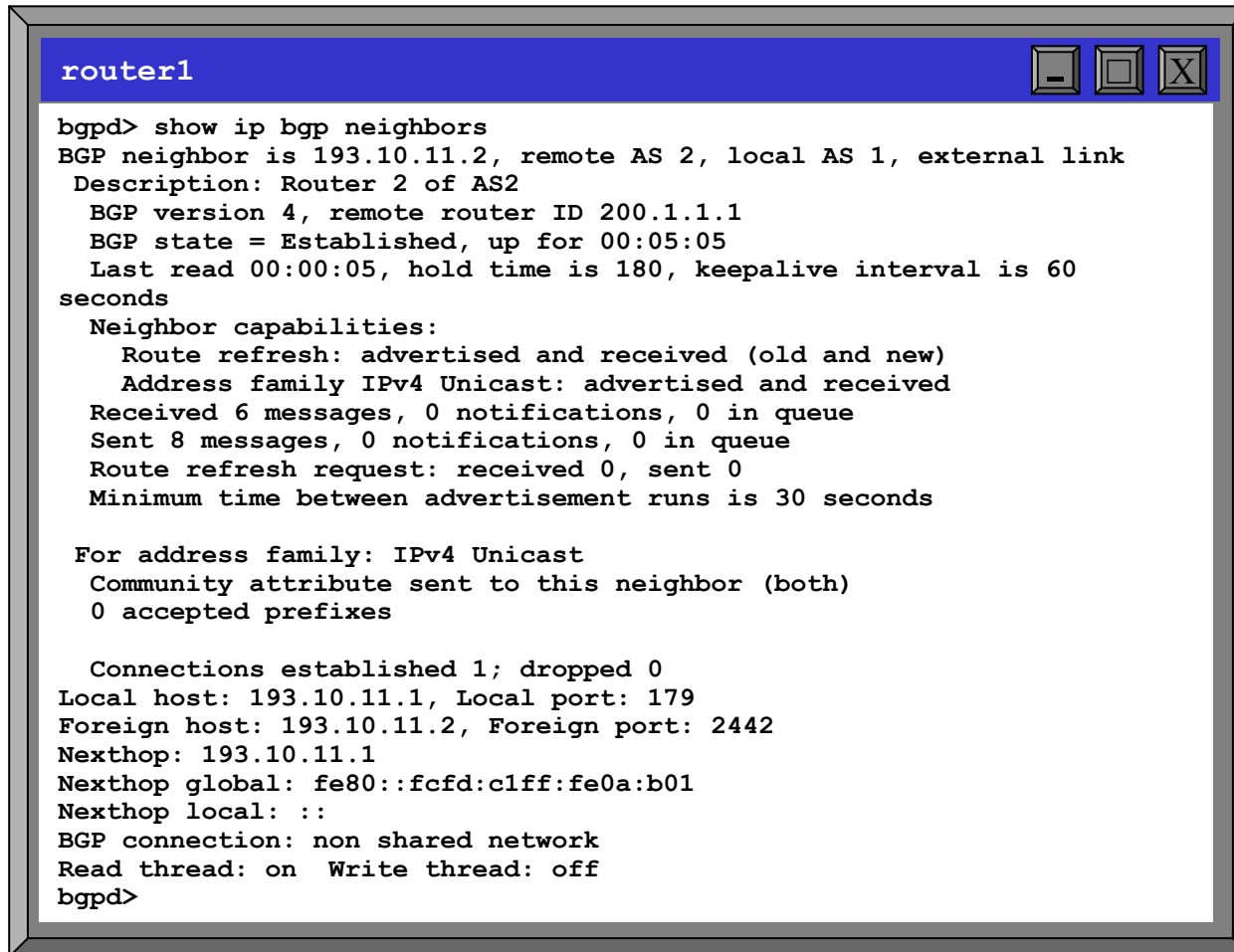
- check bgp daemon log file
 - type `less /var/log/zebra/bgpd.log`
- check the command line interface of the bgpd
 - type `telnet localhost bgpd`
 - insert the password `"zebra"`
 - type `show ip bgp summary`



```
router1
bgpd> show ip bgp summary
Neighbor      V      AS  MsgRcvd  MsgSent  TblVer  InQ  OutQ  Up/Down  State/Pref
193.10.11.2    4       2       4        5         0     0     0  00:02:09      0
bgpd>
```

a simple peering

- type "show ip bgp neighbors"



```
router1
bgpd> show ip bgp neighbors
BGP neighbor is 193.10.11.2, remote AS 2, local AS 1, external link
  Description: Router 2 of AS2
    BGP version 4, remote router ID 200.1.1.1
    BGP state = Established, up for 00:05:05
    Last read 00:00:05, hold time is 180, keepalive interval is 60
seconds
  Neighbor capabilities:
    Route refresh: advertised and received (old and new)
    Address family IPv4 Unicast: advertised and received
  Received 6 messages, 0 notifications, 0 in queue
  Sent 8 messages, 0 notifications, 0 in queue
  Route refresh request: received 0, sent 0
  Minimum time between advertisement runs is 30 seconds

  For address family: IPv4 Unicast
    Community attribute sent to this neighbor (both)
    0 accepted prefixes

    Connections established 1; dropped 0
  Local host: 193.10.11.1, Local port: 179
  Foreign host: 193.10.11.2, Foreign port: 2442
  Nexthop: 193.10.11.1
  Nexthop global: fe80::fcfd:c1ff:fe0a:b01
  Nexthop local: ::
  BGP connection: non shared network
  Read thread: on  Write thread: off
bgpd>
```

- type "lcrash netkit-lab_bgp-1-simple-peering"