<table>
<thead>
<tr>
<th><strong>Version</strong></th>
<th>2.0</th>
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<tbody>
<tr>
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<td><a href="http://www.netkit.org/">http://www.netkit.org/</a></td>
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<tr>
<td><strong>Description</strong></td>
<td>configuration of a stub as with static routes</td>
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stub network: are there options?

- outbound packets have to be sent through the link in order to reach the internet
- inbound packets have to be sent through the link in order to reach the new network
stub network with static routes

- A default static route is sufficient for the outbound packets to be sent to the internet through the link.
- A static route is sufficient for inbound packets to be sent to the new network through the link.
- No choices $\Rightarrow$ no need for BGP.
router as200r1 w/ static route

```
as200r1:~# /sbin/ifconfig eth0 11.0.0.33 netmask 255.255.255.252 broadcast 11.0.0.35 up
as200r1:~# /sbin/ifconfig eth1 200.2.0.1 netmask 255.255.0.0 broadcast 200.2.255.255 up
as200r1:~# /sbin/route add default gw 11.0.0.34
```

**Diagram:**
- **AS 20**: as200r1
- **c 2**: (200.2.0.0/16)
- **as200r1**
  - eth0: 11.0.0.33/24
  - eth1: 200.2.0.0/16
  - Default gateway: 11.0.0.34
router as20r1 w/ static route

as20r1:~# /sbin/ifconfig eth0 11.0.0.34 netmask 255.255.255.252 broadcast 11.0.0.35 up
as20r1:~# /sbin/ifconfig eth1 11.0.0.6 netmask 255.255.255.252 broadcast 11.0.0.7 up
as20r1:~# /sbin/ifconfig eth2 20.1.1.1 netmask 255.255.255.0 broadcast 20.1.1.255 up
as20r1:~# /sbin/route add -net 200.2.0.0 netmask 255.255.0.0 gw 11.0.0.33
as20r1:~#  

last update: May 2007
stub with static routes

- launch the script

```
user@localhost:~$ cd netkit-lab_bgp-stub-as-static
user@localhost:~/netkit-lab_bgp-stub-as-static$ lstart
```

- check the routing table of as20r1

```
as20r1:~# route -n
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
11.0.0.32 0.0.0.0 255.255.255.252 U 0 0 0 eth0
11.0.0.4 0.0.0.0 255.255.255.252 U 0 0 0 eth1
20.1.1.0 0.0.0.0 255.255.255.0 U 0 0 0 eth2
200.2.0.0 11.0.0.33 255.255.0.0 UG 0 0 0 eth0
```
stub with static routes

- check the routing table of as200r1

```
Kernel IP routing table
Destination   Gateway      Genmask   Flags Metric Ref    Use Iface
11.0.0.32     0.0.0.0    255.255.255.252 U     0    0   0   0 eth0
200.2.0.0     0.0.0.0    255.255.0.0   U     0    0   0   0 eth1
0.0.0.0       11.0.0.34  0.0.0.0    UG      0    0   0   0 eth0
```

- try pinging 20.1.1.1
- terminate the lab

```
user@localhost:~/netkit-lab_bgp-stub-as-static$ lcrash
```