

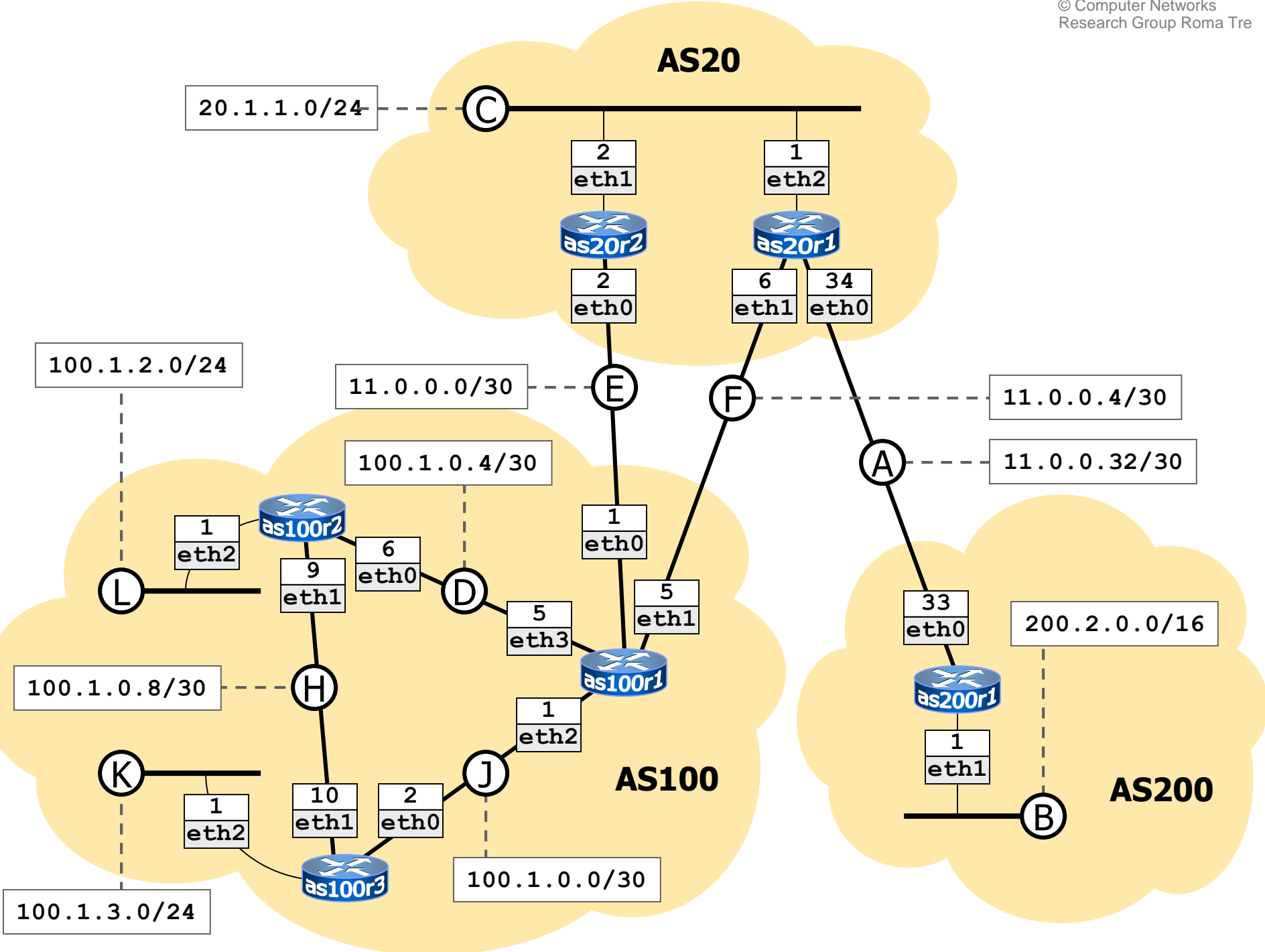
# kathara lab

bgp: multi-homed-stub-large

<b>Version</b>	1.0
<b>Author(s)</b>	G. Di Battista, M. Patrignani, M. Pizzonia, F. Ricci, M. Rimondini
<b>E-mail</b>	contact@kathara.org
<b>Web</b>	<a href="http://www.kathara.org/">http://www.kathara.org/</a>
<b>Description</b>	a multi-homed stub network running rip; kathara version of a netkit lab

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# interior gateway protocols

- rip is used:
  - within as20 to propagate reachability information about the next-hops
  - within as100 as an internal routing protocol

# router as100r1 configuration

—zebra rip configuration file—

```
router rip
network 100.1.0.0/16
redistribute bgp
```

- talk rip on some interface
- send distance vector packets through interfaces falling into the specified prefix
- redistribute bgp-learned routes to rip neighbors

# router as100r2 configuration

—zebra rip configuration file—

```
router rip
network 100.1.0.0/16
redistribute connected
```

- talk rip on some interface
- send distance vector packets through interfaces falling into the specified prefix
- redistribute connected networks to rip neighbors
  - the network that is directly connected to a rip enabled interface is automatically inserted in the local rip routing table

# routing table

## ■ rip routing table on as100r1

▼ as100r1

```
as100r1:~# telnet localhost ripd
```

```
.....
```

```
User Access Verification
```

```
Password:
```

```
ripd> show ip rip
```

```
Codes: R - RIP, C - connected, O - OSPF, B - BGP
```

```
(n) - normal, (s) - static, (d) - default, (r) - redistribute,  
(i) - interface
```

route distributed  
from bgp into rip

	Network	Next Hop	Metric	From	Time
B(r)	0.0.0.0/0	11.0.0.2	1	self	
C(i)	100.1.0.0/30	0.0.0.0	1	self	
C(i)	100.1.0.4/30	0.0.0.0	1	self	
R(n)	100.1.0.8/30	100.1.0.6	2	100.1.0.6	02:24
R(n)	100.1.2.0/24	100.1.0.6	2	100.1.0.6	02:24
R(n)	100.1.3.0/24	100.1.0.2	2	100.1.0.2	02:41

```
ripd> █
```

# play with the network

- have a look at the routing tables of routers inside as100
  - does the 0/0 arrive on as100r2 and as100r3? why?
- try to **ping/traceroute** all the pairs of routers
- look for bgp updates in bgpd logs
- capture (bgp) packets on the routers
- create faults on collision domain E