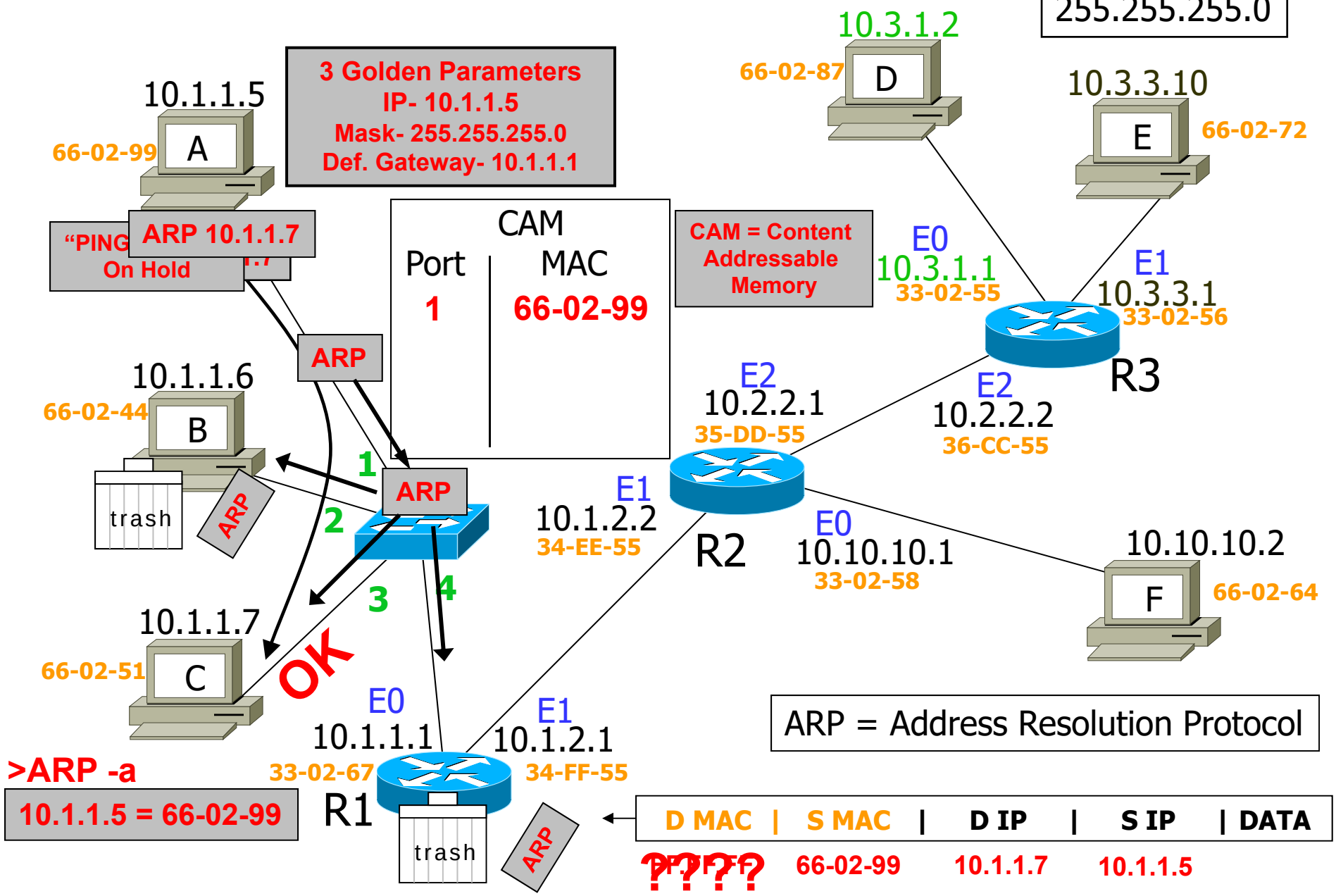
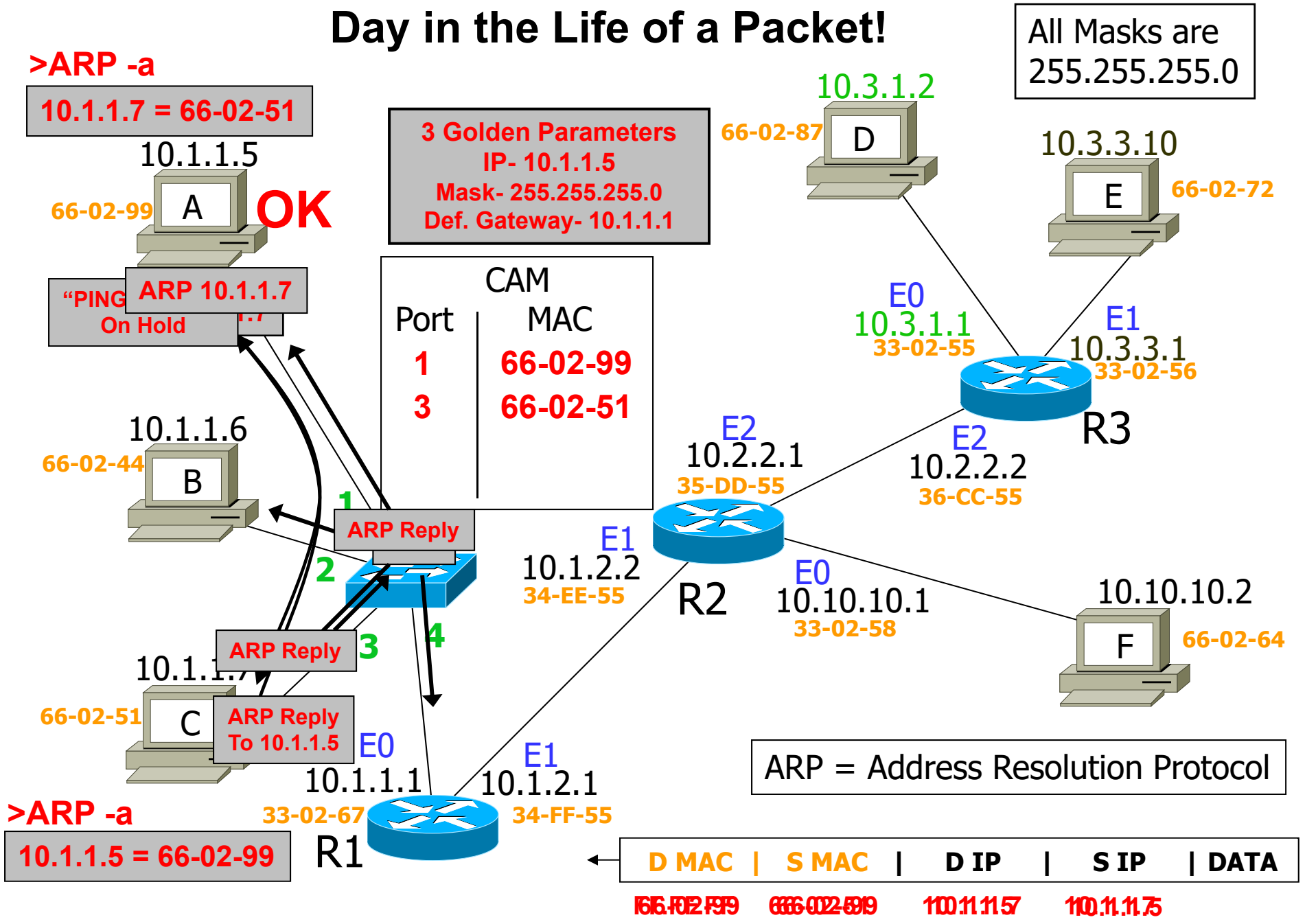
Day in the Life of a Packet!

All Masks are 255.255.255.0



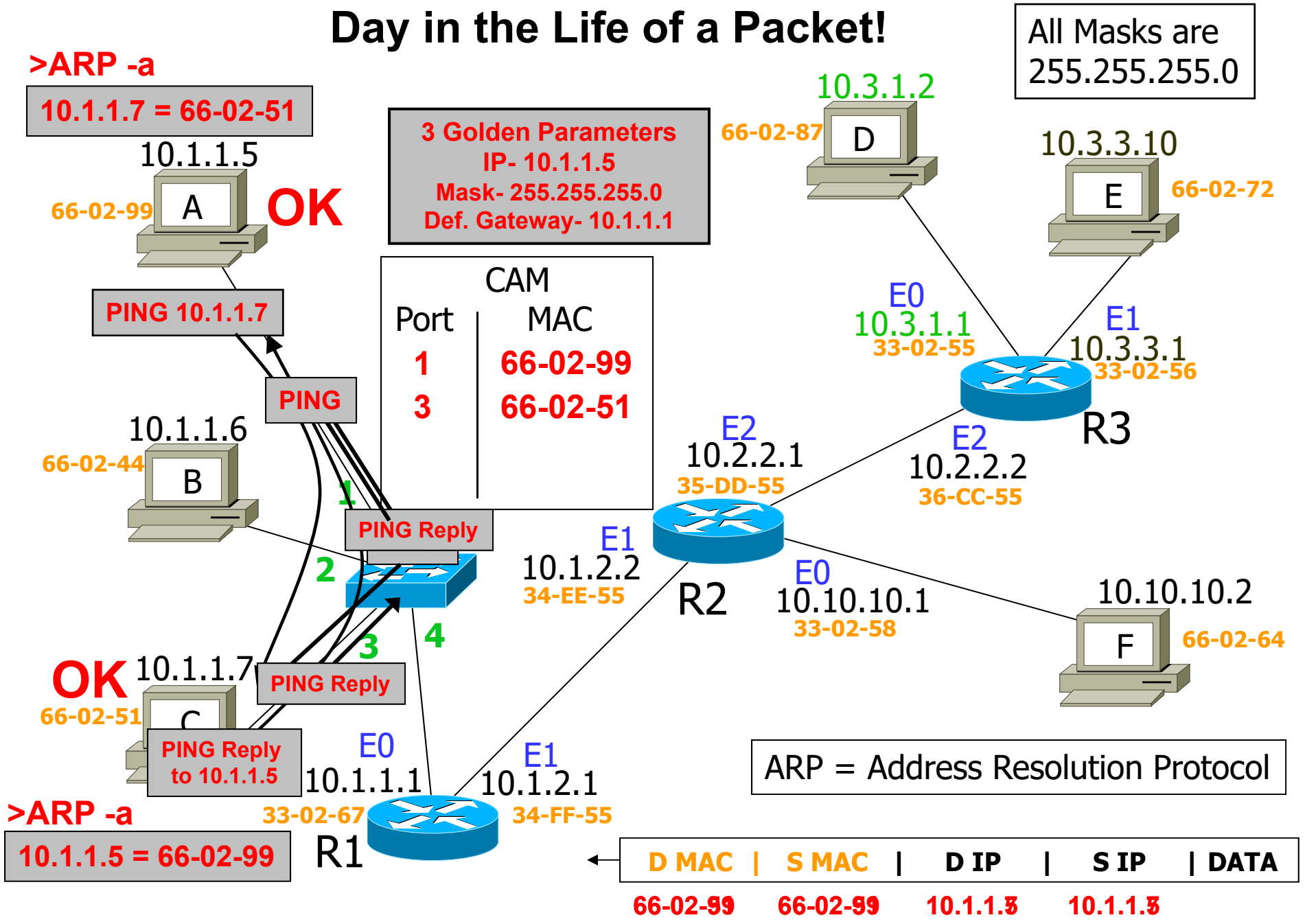
The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!



The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!



The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

All Masks are 255.255.255.0

>ARP -a

10.1.1.7 = 66-02-51

3 Golden Parameters
IP- 10.1.1.5
Mask- 255.255.255.0
Def. Gateway- 10.1.1.1

10.1.1.5
66-02-99 A

10.3.1.2
66-02-87 D

10.3.3.10
E 66-02-72

CAM

Port	MAC
1	66-02-99
3	66-02-51

E0
10.3.1.1
33-02-55

E1
10.3.3.1
33-02-56

R3

10.1.1.6
66-02-44 B

1
2
3
4

E2
10.2.2.1
35-DD-55

E2
10.2.2.2
36-CC-55

E1
10.1.2.2
34-EE-55

R2

E0
10.10.10.1
33-02-58

10.10.10.2
F 66-02-64

10.1.1.7
66-02-51 C

E0
10.1.1.1
33-02-67

E1
10.1.2.1
34-FF-55

R1

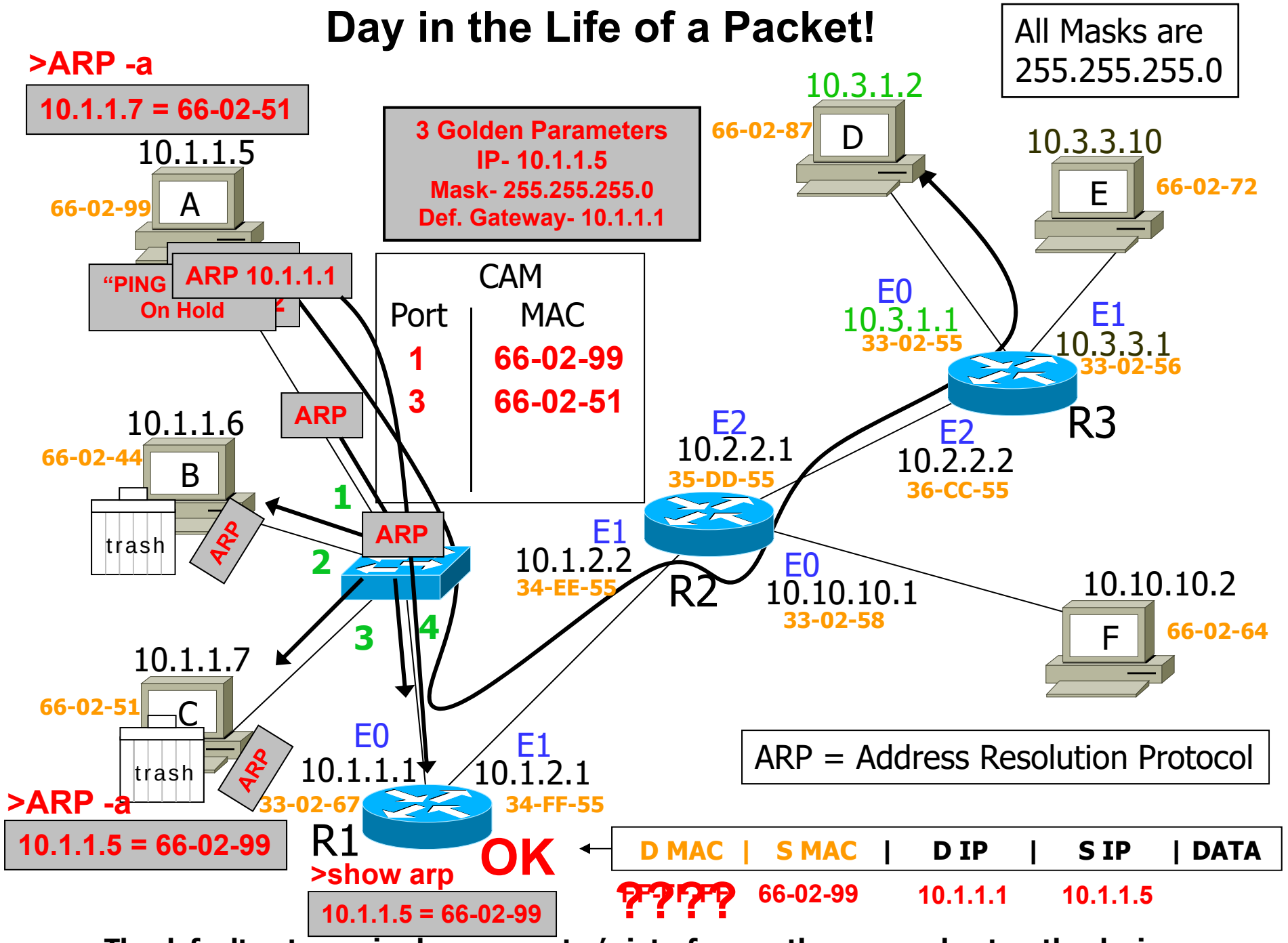
ARP = Address Resolution Protocol

>ARP -a

10.1.1.5 = 66-02-99

D MAC | S MAC | D IP | S IP | DATA

The default gateway is always a router's interface on the same subnet as the device.


Day in the Life of a Packet!
All Masks are 255.255.255.0
>ARP -a
10.1.1.7 = 66-02-51
3 Golden Parameters
IP- 10.1.1.5
Mask- 255.255.255.0
Def. Gateway- 10.1.1.1
10.1.1.5
66-02-99
A
"PING
On Hold
ARP 10.1.1.1
CAM
Port
MAC
1
66-02-99
3
66-02-51
10.3.1.2
66-02-87
D
10.3.3.10
E
66-02-72
E0
10.3.1.1
33-02-55
E1
10.3.3.1
33-02-56
R3
ARP
10.1.1.6
66-02-44
B
trash
ARP
1
ARP
2
E2
10.2.2.1
35-DD-55
E2
10.2.2.2
36-CC-55
E1
10.1.2.2
34-EE-55
R2
E0
10.10.10.1
33-02-58
10.10.10.2
F
66-02-64
3
4
10.1.1.7
66-02-51
C
trash
ARP
E0
10.1.1.1
33-02-67
E1
10.1.2.1
34-FF-55
ARP = Address Resolution Protocol
>ARP -a
10.1.1.5 = 66-02-99
R1
>show arp
10.1.1.5 = 66-02-99
OK
D MAC | S MAC | D IP | S IP | DATA
???? 66-02-99 10.1.1.1 10.1.1.5
The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

All Masks are 255.255.255.0

>ARP -a

10.1.1.7 = 66-02-51

3 Golden Parameters
IP- 10.1.1.5
Mask- 255.255.255.0
Def. Gateway- 10.1.1.1

10.1.1.5
66-02-99 A
OK

"PING 10.3.1.2" On Hold

10.3.1.2
66-02-87 D

10.3.3.10
E 66-02-72

CAM

Port	MAC
1	66-02-99
3	66-02-51
4	33-02-67

E0
10.3.1.1
33-02-55

E1
10.3.3.1
33-02-56

R3

10.1.1.6
66-02-44 B

1
ARP Reply
2

E2
10.2.2.1
35-DD-55

E2
10.2.2.2
36-CC-55

E1
10.1.2.2
34-EE-55

R2

E0
10.10.10.1
33-02-58

10.10.10.2
F 66-02-64

3
4

10.1.1.7
66-02-51 C

ARP Reply

E0
10.1.1.1
33-02-67

E1
2.1
F-55

ARP Reply to 10.1.1.5

R1

OK

ARP = Address Resolution Protocol

>ARP -a

10.1.1.5 = 66-02-99

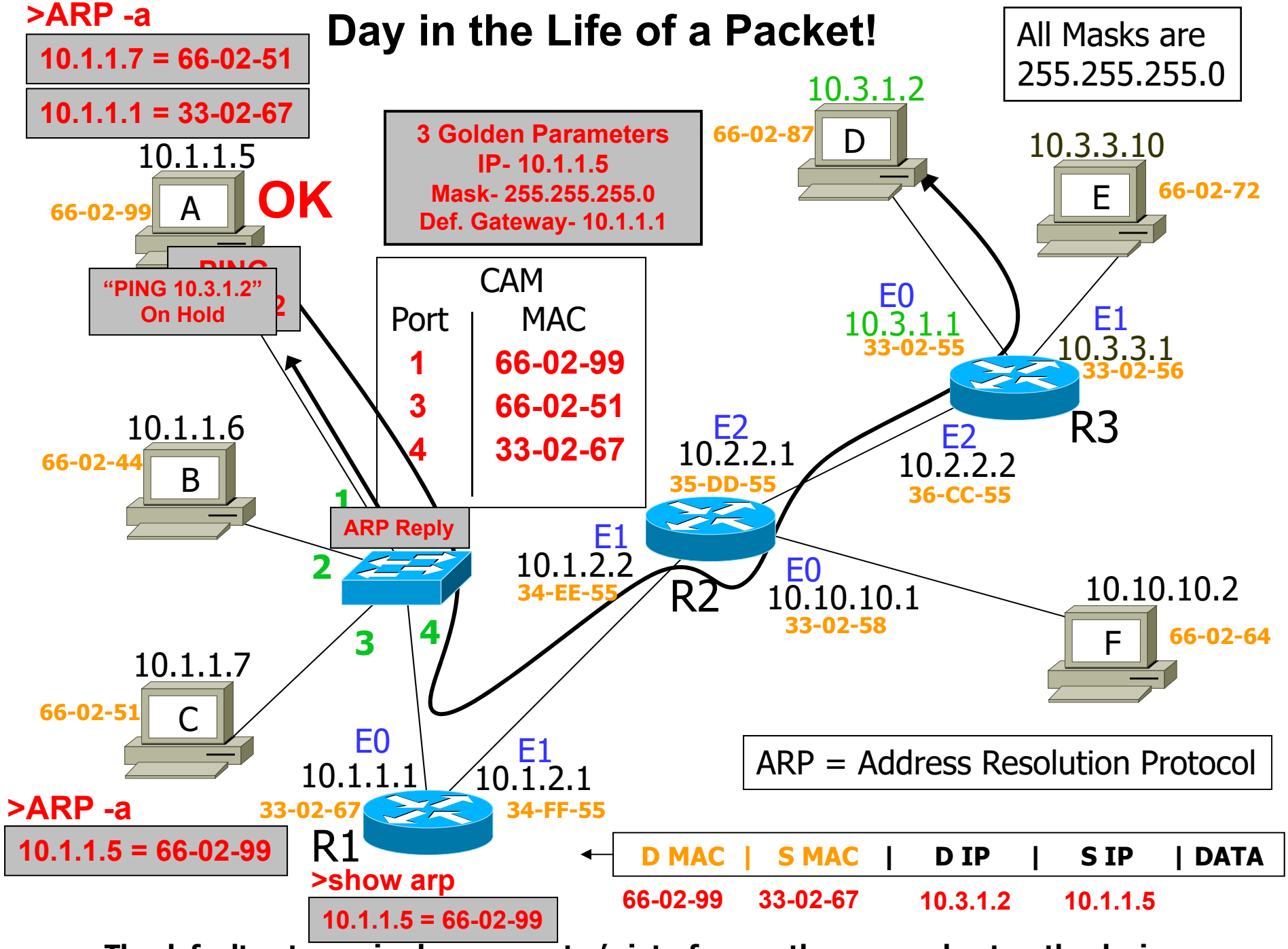
>show arp

10.1.1.5 = 66-02-99

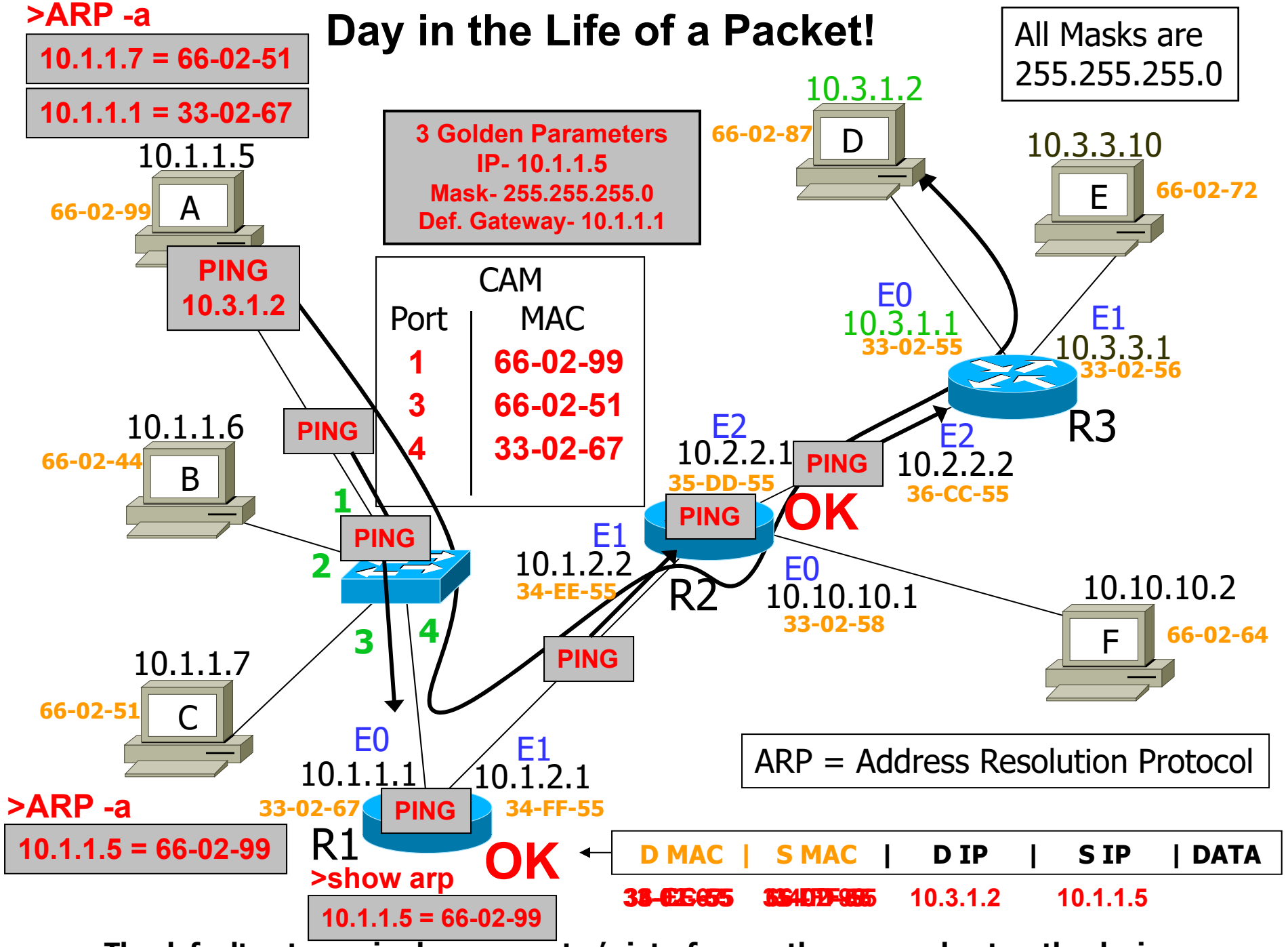
D MAC	S MAC	D IP	S IP	DATA
~~66-02-99~~	~~33-02-67~~	~~10.3.1.2~~	~~10.1.1.5~~	

The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

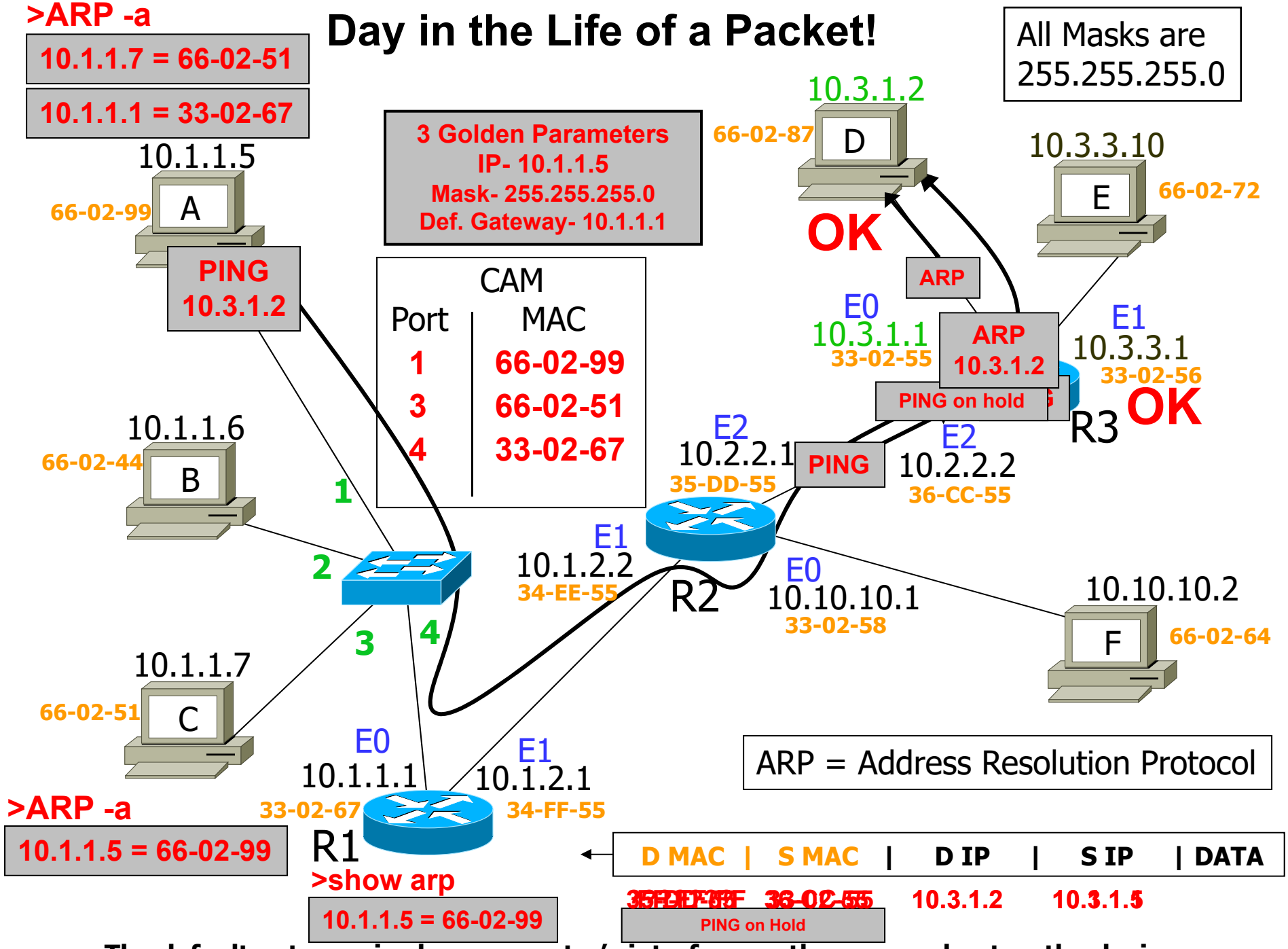


The default gateway is always a router's interface on the same subnet as the device.



The default gateway is always a router's interface on the same subnet as the device.

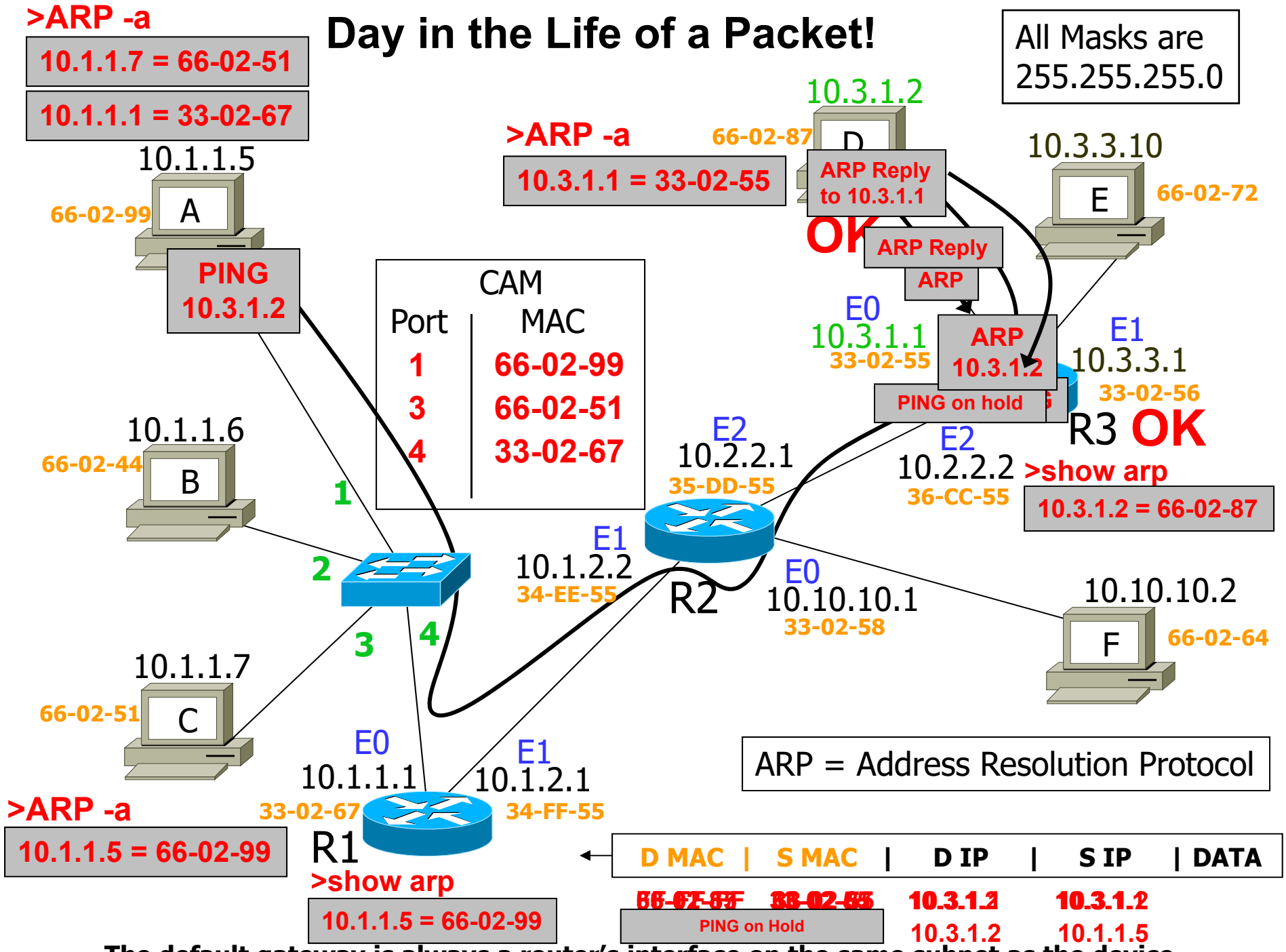
Day in the Life of a Packet!



The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

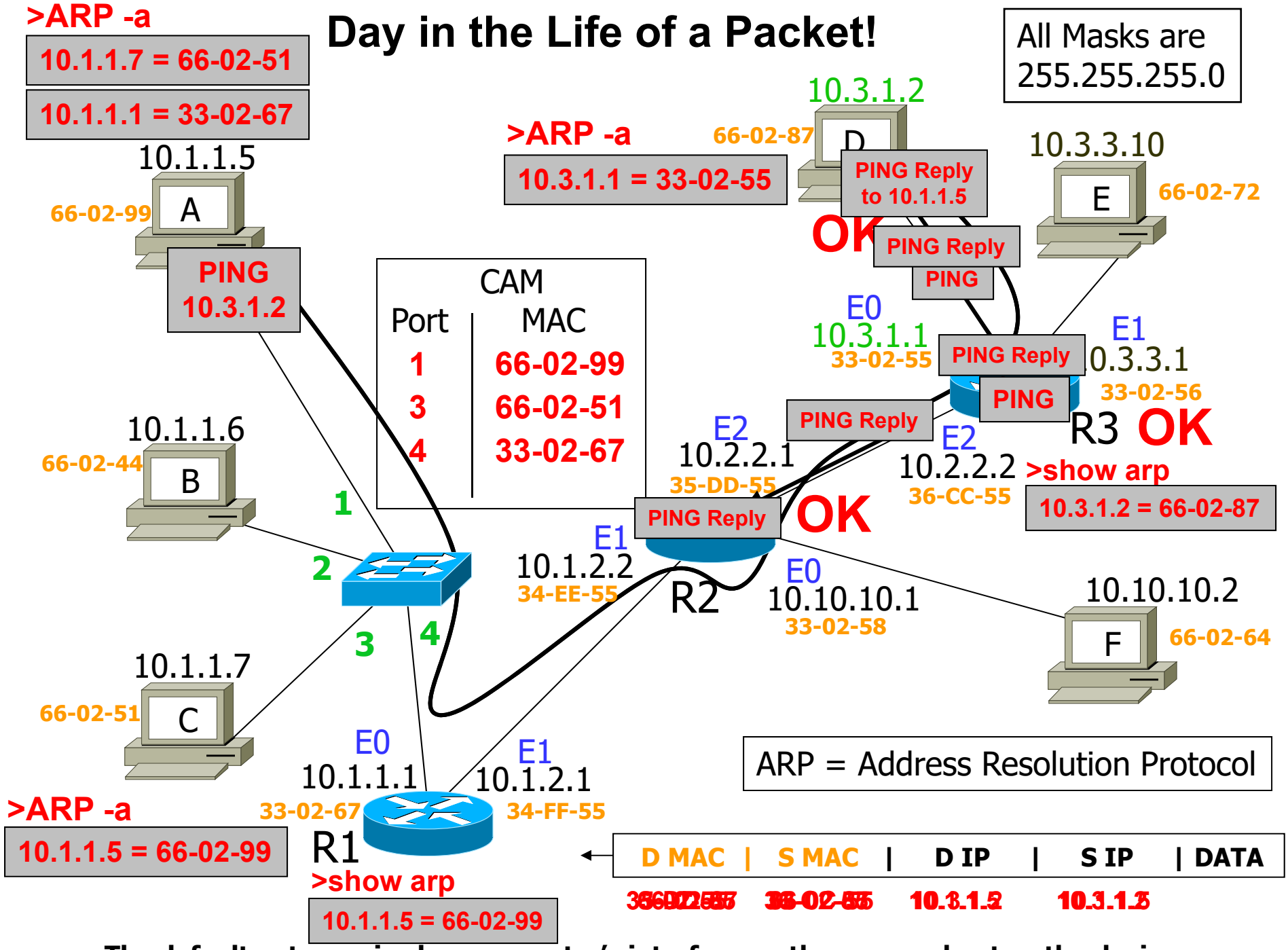
All Masks are 255.255.255.0



The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

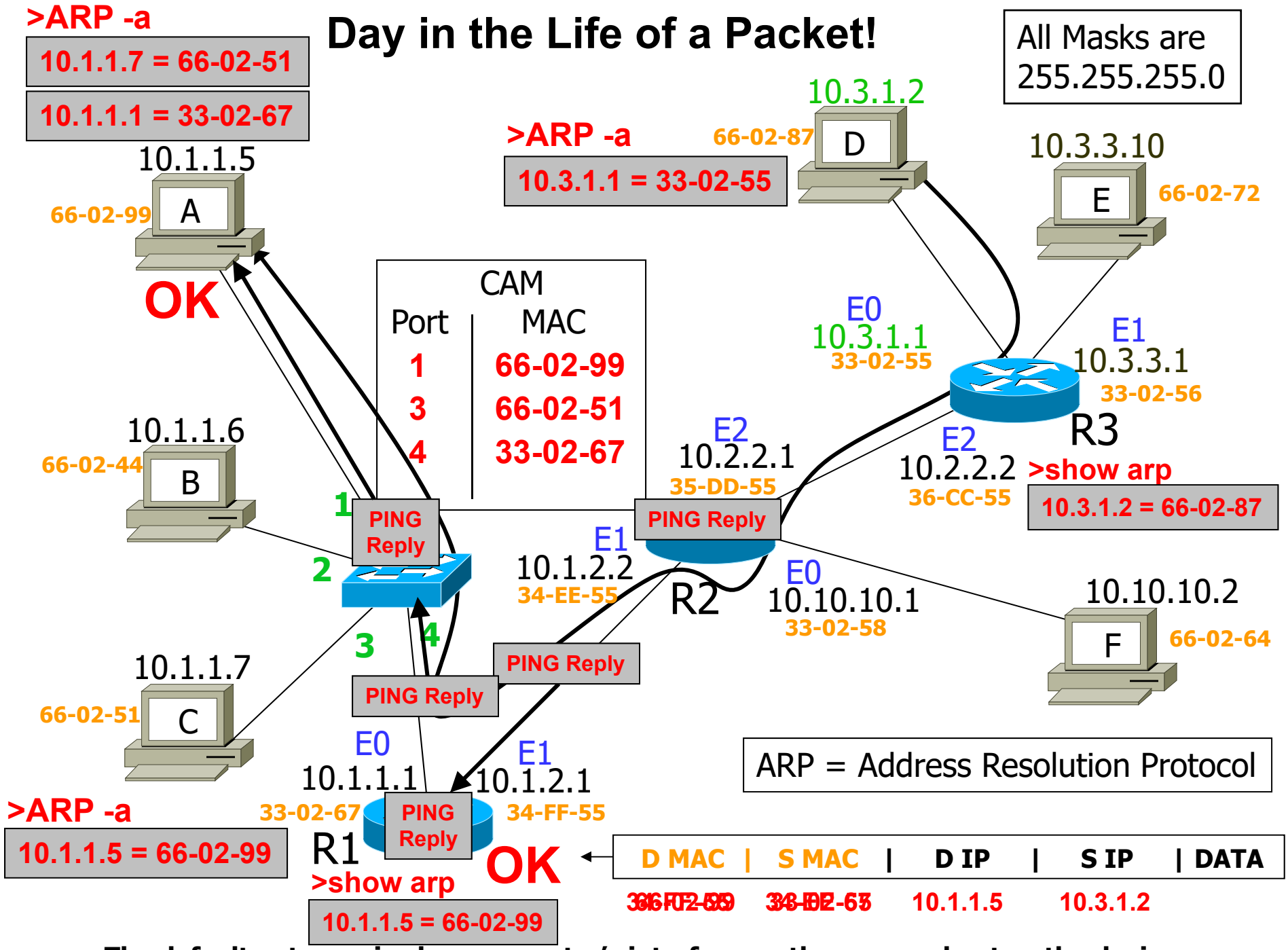
All Masks are 255.255.255.0



The default gateway is always a router's interface on the same subnet as the device.

Day in the Life of a Packet!

All Masks are 255.255.255.0



The default gateway is always a router's interface on the same subnet as the device.