SIEMENS

Suggestion for L2 and L3 Streams
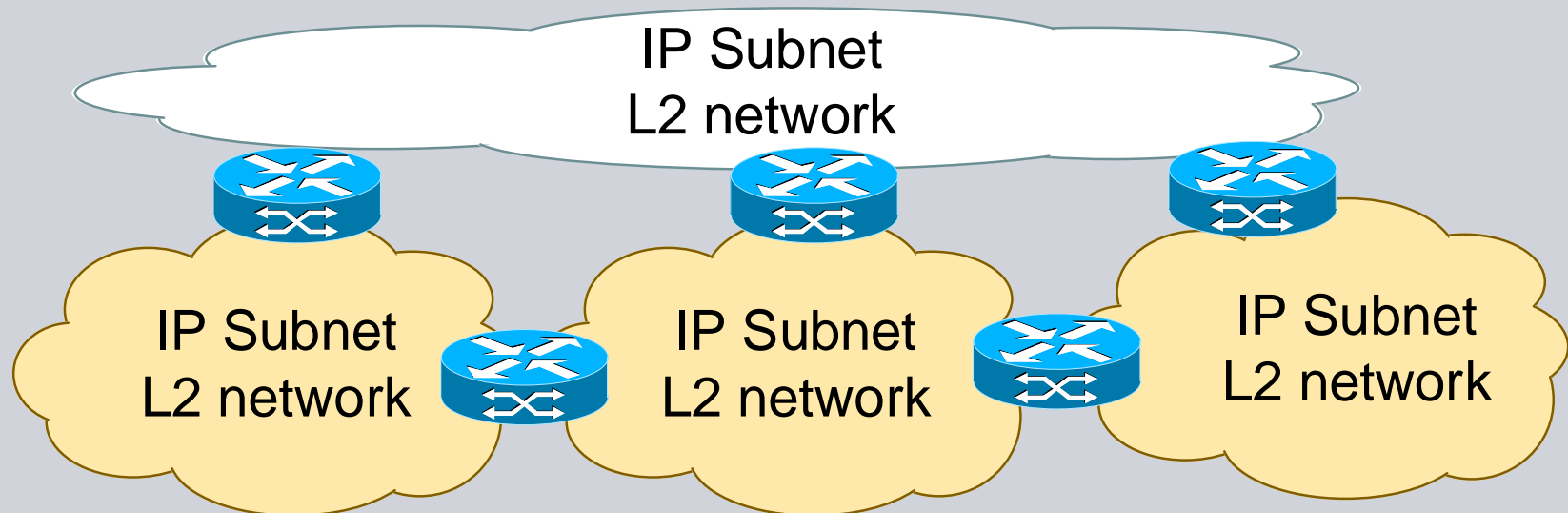
16-07-2013

IEEE 802.3 Plenary Meeting – Geneva

Marcel Kießling, Siemens AG

SIEMENS
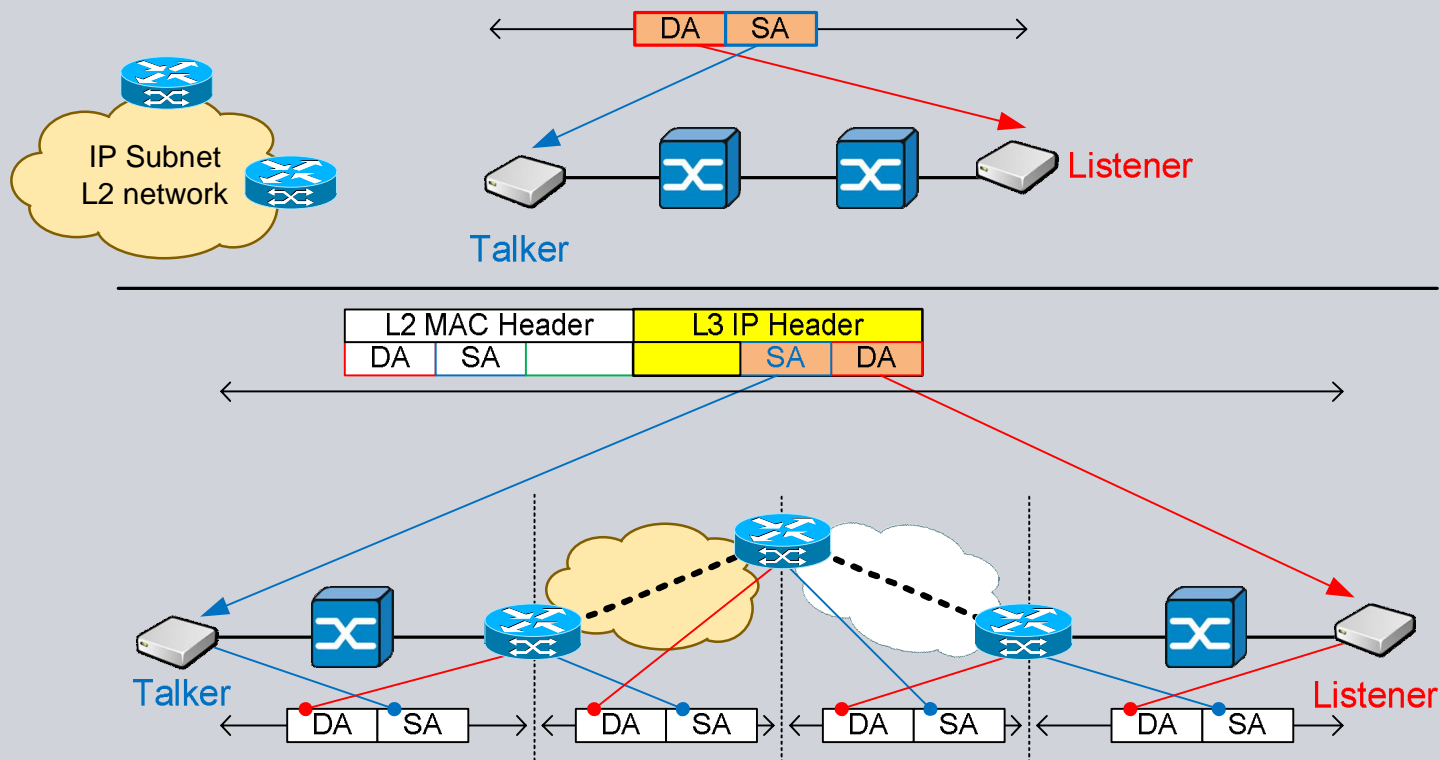
Connection between two IP Addresses

- IP Address in the same Subnet ?
  - YES: L2 Forwarding to the target
  - NO: L2 Forwarding to the **next router**

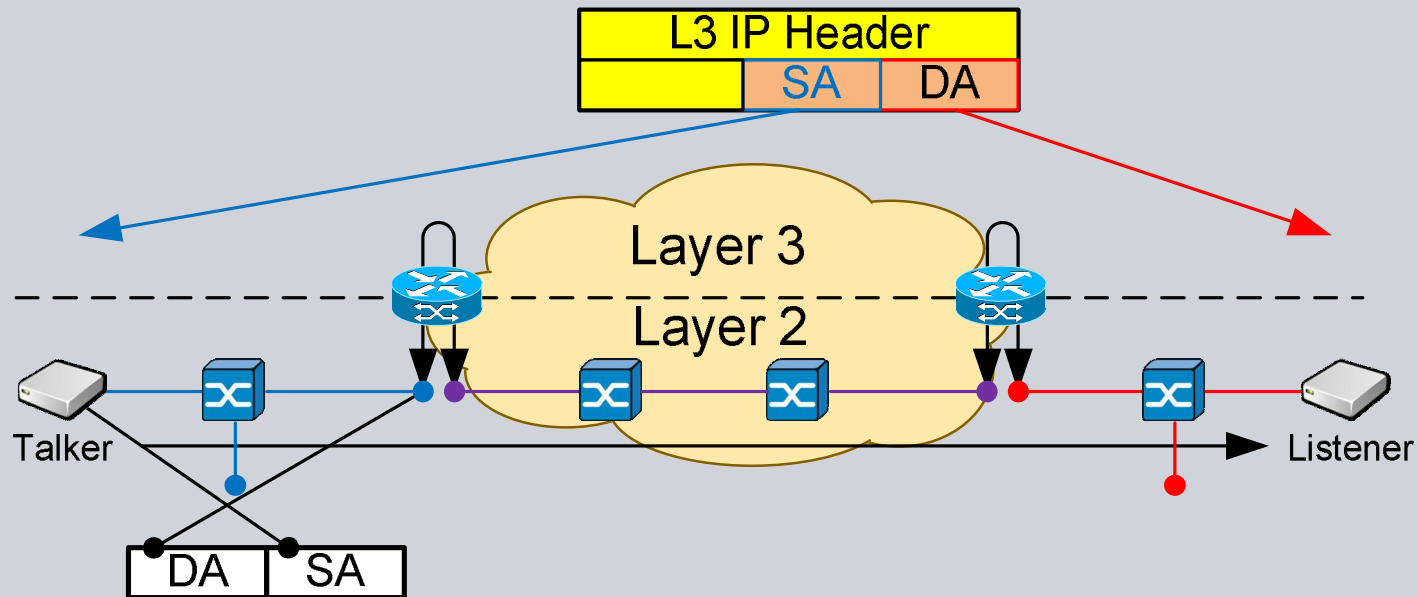# IP and Layer 2 in a network

■DA **MAC** address is only valid inside a L2 network / IP Subnet

■ DA **IP** address is fixed over whole connection

■ **L2 Forwarding** to the **target** (Listener)
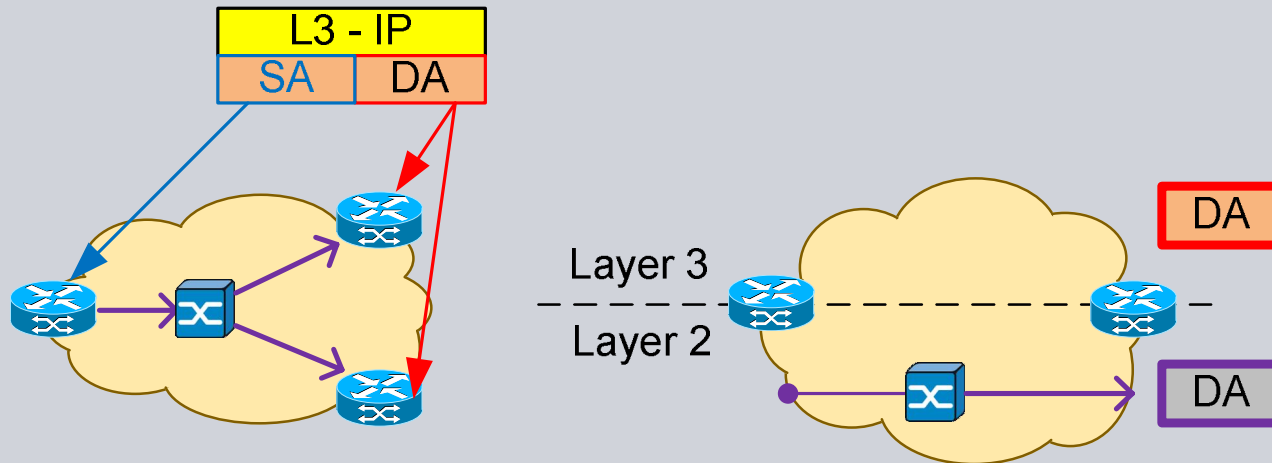**or** to the **next router** (closer to target-subnet)

Mapping between L2 and L3

- Mapping of L3 Routes on L2 Paths
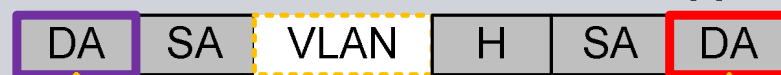- Connection between L2 domains using L3 "forwarding" in router

IP Multicast maps to L2 Multicast

▪ Mapping of L3 Routes to L2 Paths needed

▪ Connection between L2 domains using L3 in router

Multicast IP – L2 MAC Address Mapping

01-00-5E- + DA

SIEMENS

Additional Information

Layer 2 and Layer 3 uses the same HW:

▪ http://www.ieee802.org/1/files/public/docs2013/new-QoS-nfinn-L2-L3-cooperation-0113-v01.pdf