TÉCNICO LISBOA

- **Layer 1 VLAN (*Port-based VLANs*):** This solution associates each Switch port to a given VLAN. In other words each station connected to a certain port becomes automatically part of a given VLAN. Ports here are referred as untagged ports and receive untagged frames, this frames are traditional ones (do not contain any information about VLAN membership).

  PORT

- **Layer 2 VLAN (MAC *Address-based VLAN*):** In this case VLANs aggregate the stations according to its MAC address. The mapping MAC/VLAN is introduced via software by the network manager. One station can belong to different VLANs. The frames used here are referred as tagged frames (contain a tag indicating membership).

  MAC ADDRESS

- **Layer 3 VLAN (*Network Address-based* VLAN):** Here the grouping of stations into a certain VLAN is done using the information included in the IP address, which requires the using of switches with capacity for processing layer 3 headers, or in alternative using routers.

  IP