Point to Point & Shared Media – Point to Point (P2P): directly connected, nothing in the way – Shared – Media: Broadcast, a layer 2 device in the way – Power over Ethernet (PoE): – Carrying Power over 2 pairs of Copper Cables (enough to power up some network devices) – Can replace an AC adapter – PoE Terms: PSE: – Power Sourcing Equipment (Switches, Power Injectors) – PD: Powered Device (PCs, IP Phones, IP Cameras) – Negotiation happens between the PSE & PD before/after starting Suppling – Power Suppling over PoE can be from 15 – 95 Watts (Total) – UPoE+: Universal PoE make use of all the 4pair to carry both Data&Power Cisco Certified Network Associate (200–301 CCNA) 20 1.5 Interfaces and Cables Issues: – Collisions: more than one device (PC) transmitting at a single time in a shared media – Carrier sense multiple access/collision detection, CSMA/CD Solved it!!– Errors: Cabling ?Issue, Unsupported SFP – Duplex Mismatch: Half or Full?MUST MATCH – Speed: 10/100/1000