ITS 332 Networking Lab

Network Lab Facilities

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1   Work Stations

The Network Lab consist of 36 work stations (4 groups of 9), comprising an Intel-based computer and LCD monitor. Each computer has two operating systems installed: Microsoft Windows XP and Ubuntu Linux. As well as all the standard devices of recent PCs, each computer has two 100Mb/s Fast Ethernet network interface cards.

2   Network Infrastructure

The lab computers are connected via a 100Mb/s Fast Ethernet LAN. The default configuration of the network has each interface on each of the group of 9 computers connected to a Cisco switch in one of the four rack cabinets (that is 18 Ethernet cables into the switch). Each cabinet contains one switch and two Cisco routers. In the default configuration the routers are not used, but will be use for special confiruations during the lab class. The connections for a single computer are illustrated in Figure 1. Note that each of the Ethernet cables go into a socket in the floor, and then to the switch. The group connections are shown in Figures 2 and 3.

The switch for each group is then connected to a switch in the IT Centre on the 3rd floor (and subsequently to the rest of the SIIT network, and Internet). This connects puts all computers in the lab in the same IP network. They are also connected to other computers on the SIIT Bangkadi network, and subsequently to Rangsit and the Internet.
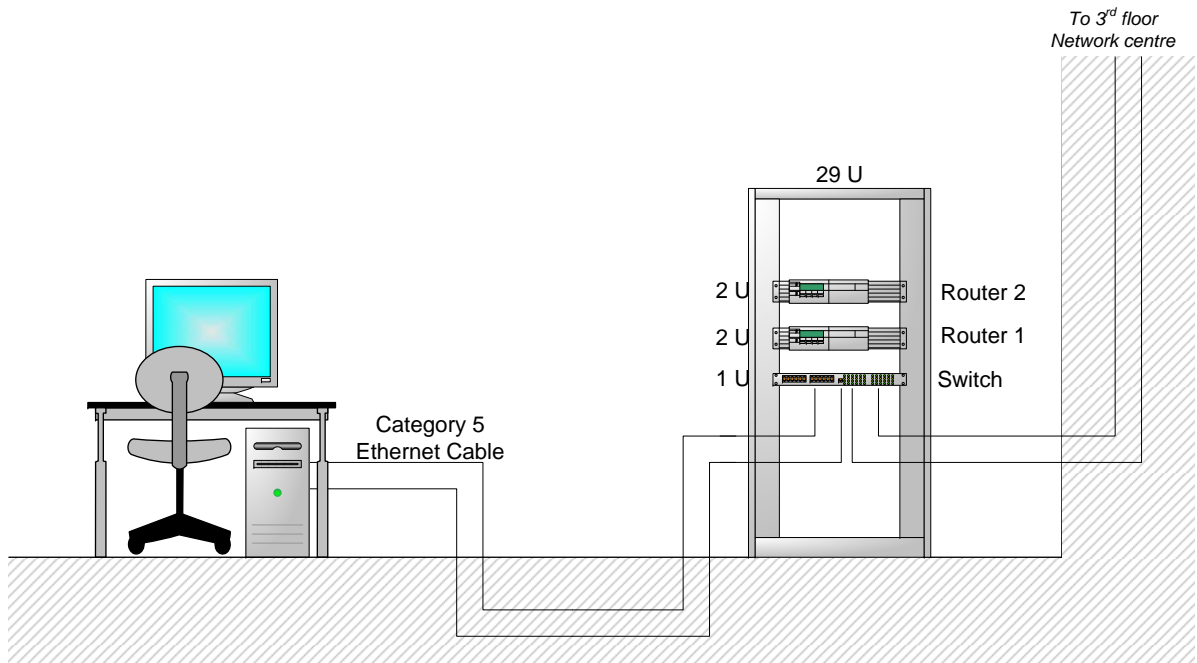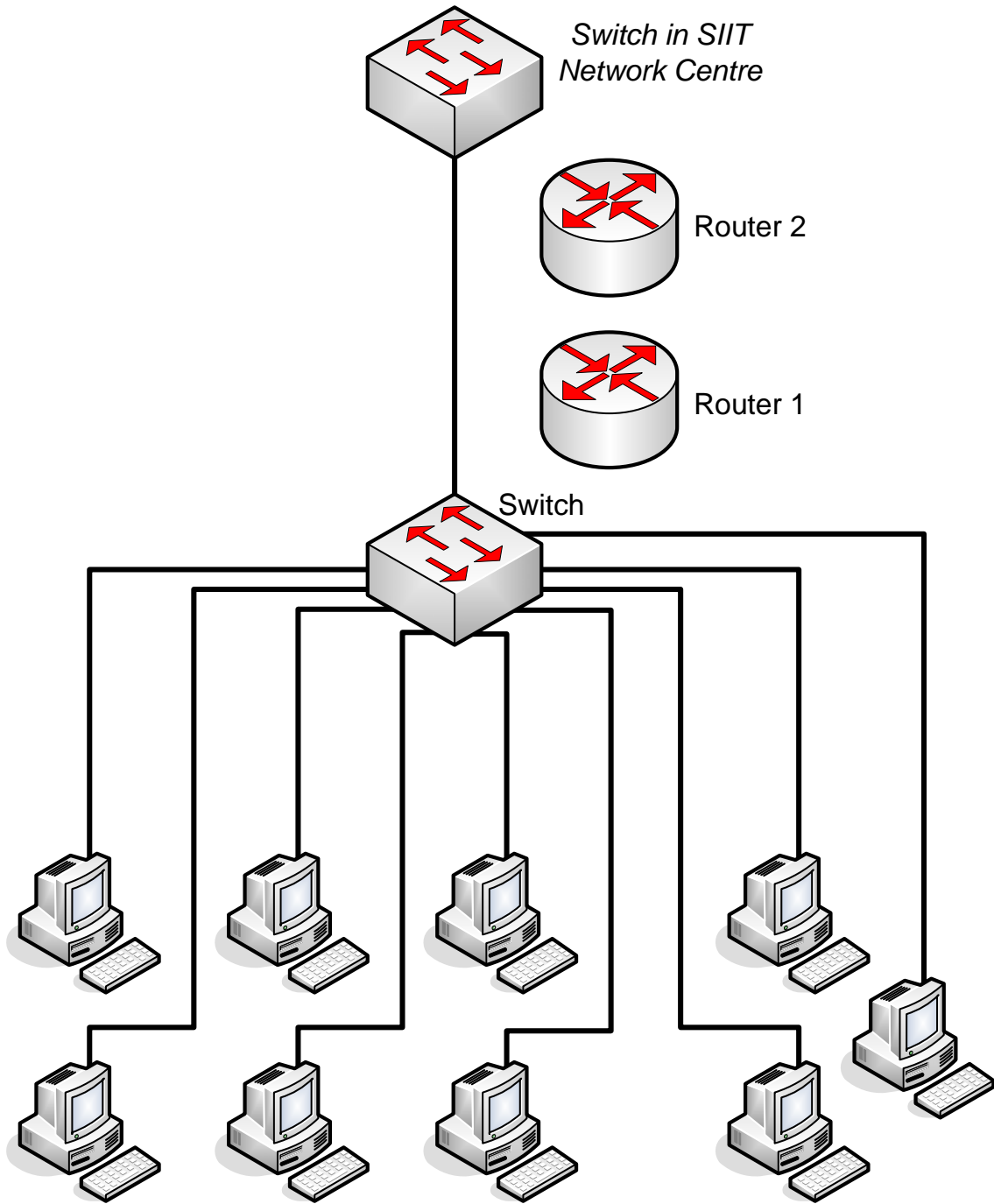
Figure 1: Network Lab: Connections for each computer

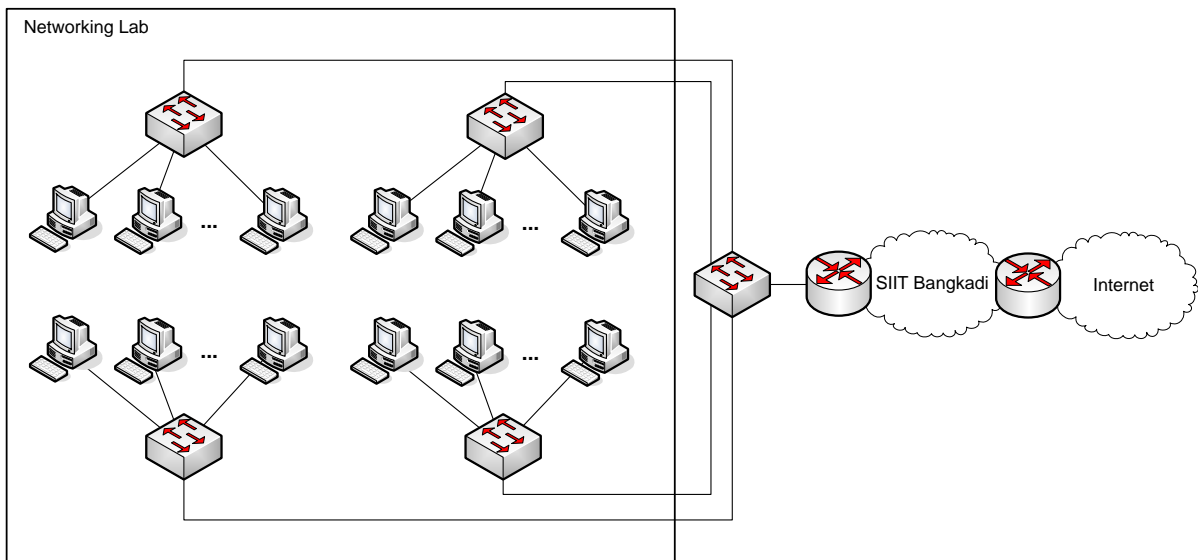Figure 2: Network Lab: Connections for each group of 9 computers

Figure 3: Network Lab: Connections for entire lab