

Distribution of the IP Addressing in the Hospital Network

Manav Vakharia

Meet Shingala

Institute of Technology, Nirma University

Computer Networks and Wireless Sensor Networks

19/07/2023

Distribution of the IP address' across the Civil Hospital Campus

These figures are our assumption; they do not represent the real situation

No. Of Devices (Assumed)	No. Of Hosts Free	Host Bits	Dept. Buidling	Subnet Prefix	Subnet Mask
1500	2046	11	Hostel	180.0.0.0/21	255.255.248.0
500	510	9	Trauma	180.0.8.0/23	255.255.254.0
500	510	9	College	180.0.10.0/23	255.255.254.0
450	510	9	Hospital	180.0.12.0/23	255.255.254.0
220	254	8	Dental	180.0.14.0/24	255.255.255.0
220	254	8	Nursing	180.0.15.0/24	255.255.255.0
200	254	8	Cancer	180.0.16.0/24	255.255.255.0
100	126	7	Admin.	180.0.17.0/25	255.255.255.128
100	126	7	PostM	180.0.17.128/25	255.255.255.128

The above no. Of free hosts are 2 less than $2^{\text{Host bits}}$ as the first IP address e.g 180.0.0.0/21(Network Indentification) and last IP address (Broadcast Address) are not to be given .