# Hotel International Iasi

**1 The subnetworks analyses**

Number of the subnetworks: 5

Future subnetworks: 8

Today’s subnetwork has a maximum of 30 hosts

The future subnetwork will have a number of 30 hosts

Network type: C

**2 Subnetworks**

I. Video cameras: 14

II. Ground floor computers: 9

III. Single camera: 1 computer, one network hub

IV. Double camera: 1 computer, one network hub

V. Suite: 2 computers, two network hubs

VI. Camera surveillance: 2 computers

**3 Subnetwork address**

192.168.2.0 - C class network

𝟐^𝑺 ≥ 7 => 𝑺 = 3

𝟐^𝑯 − 𝟐 ≥ 30 => 𝑯 = 𝟓

**4 Subnetwork mask**

CDIR: 27 (24+3)

255.255.255.224

Binary=1111111.11111111.11111111.11100000

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Subnetwork | ID  subnetwork | IP  subnetwork | Subnetwork  mask | IP address range | Broadcast  address |
| #0 | 000 | 192.168.2.0 | 225.225.225.224 | 192.168.2.1 -- 192.168.2.30 | 192.168.2.31 |
| #1 | 001 | 192.168.2.32 | 225.225.225.224 | 192.168.2.33 -- 192.168.2.62 | 192.168.2.63 |
| #2 | 010 | 192.168.2.64 | 225.225.225.224 | 192.168.2.65 -- 192.168.2.94 | 192.168.2.95 |
| #3 | 011 | 192.168.2.96 | 225.225.225.224 | 192.168.2.97 -- 192.168.2.126 | 192.168.2.127 |
| #4 | 100 | 192.168.2.128 | 225.225.225.224 | 192.168.2.129 -- 192.168.2.158 | 192.168.2.159 |
| #5 | 101 | 192.168.2.160 | 225.225.225.224 | 192.168.2.161 -- 192.168.2.190 | 192.168.2.191 |
| #6 | 110 | 192.168.2.192 | 225.225.225.224 | 192.168.2.193 -- 192.168.2.222 | 192.168.2.223 |