

Computer Networks | CS3001 | Project: D1

JANUARY 18, 2024

Daniyal Khan : 20i-1847



Project | Computer Networks

Network: Implementation

20i-1847 Daniyal Khan

Subnetting Successful

Major Network: **64.0.0.0/8**
Available IP addresses in major network: **16777214**
Number of IP addresses needed: **653636**
Available IP addresses in allocated subnets: **851946**
About **5%** of available major network address space is used
About **77%** of subnetted network address space is used

Subnet Name	Needed Size	Allocated Size	Address	Mask	Dec Mask	Assignable Range	Broadcast
A	112656	131070	64.0.0.0	/15	255.254.0.0	64.0.0.1 - 64.1.255.254	64.1.255.255
D	112258	131070	64.2.0.0	/15	255.254.0.0	64.2.0.1 - 64.3.255.254	64.3.255.255
G	103750	131070	64.4.0.0	/15	255.254.0.0	64.4.0.1 - 64.5.255.254	64.5.255.255
J	100499	131070	64.6.0.0	/15	255.254.0.0	64.6.0.1 - 64.7.255.254	64.7.255.255
H	68145	131070	64.8.0.0	/15	255.254.0.0	64.8.0.1 - 64.9.255.254	64.9.255.255
I	57400	65534	64.10.0.0	/16	255.255.0.0	64.10.0.1 - 64.10.255.254	64.10.255.255
C	29488	32766	64.11.0.0	/17	255.255.128.0	64.11.0.1 - 64.11.127.254	64.11.127.255
B	22729	32766	64.11.128.0	/17	255.255.128.0	64.11.128.1 - 64.11.255.254	64.11.255.255
E	18408	32766	64.12.0.0	/17	255.255.128.0	64.12.0.1 - 64.12.127.254	64.12.127.255
K	16335	16382	64.12.128.0	/18	255.255.192.0	64.12.128.1 - 64.12.191.254	64.12.191.255
F	11968	16382	64.12.192.0	/18	255.255.192.0	64.12.192.1 - 64.12.255.254	64.12.255.255

Subnetting Successful

Major Network: **64.144.0.0/12**
 Available IP addresses in major network: **1048574**
 Number of IP addresses needed: **653682**
 Available IP addresses in allocated subnets: **851992**
 About **81%** of available major network address space is used
 About **77%** of subnetted network address space is used

Subnet Name	Needed Size	Allocated Size	Address	Mask	Dec Mask	Assignable Range	Broadcast
A	112656	131070	64.144.0.0	/15	255.254.0.0	64.144.0.1 - 64.145.255.254	64.145.255.255
D	112258	131070	64.146.0.0	/15	255.254.0.0	64.146.0.1 - 64.147.255.254	64.147.255.255
G	103750	131070	64.148.0.0	/15	255.254.0.0	64.148.0.1 - 64.149.255.254	64.149.255.255
J	100499	131070	64.150.0.0	/15	255.254.0.0	64.150.0.1 - 64.151.255.254	64.151.255.255
H	68145	131070	64.152.0.0	/15	255.254.0.0	64.152.0.1 - 64.153.255.254	64.153.255.255
I	57400	65534	64.154.0.0	/16	255.255.0.0	64.154.0.1 - 64.154.255.254	64.154.255.255
C	29488	32766	64.155.0.0	/17	255.255.128.0	64.155.0.1 - 64.155.127.254	64.155.127.255
B	22729	32766	64.155.128.0	/17	255.255.128.0	64.155.128.1 - 64.155.255.254	64.155.255.255
E	18408	32766	64.156.0.0	/17	255.255.128.0	64.156.0.1 - 64.156.127.254	64.156.127.255
K	16335	16382	64.156.128.0	/18	255.255.192.0	64.156.128.1 - 64.156.191.254	64.156.191.255
F	11968	16382	64.156.192.0	/18	255.255.192.0	64.156.192.1 - 64.156.255.254	64.156.255.255
L	2	2	64.157.0.0	/30	255.255.255.252	64.157.0.1 - 64.157.0.2	64.157.0.3
M	2	2	64.157.0.4	/30	255.255.255.252	64.157.0.5 - 64.157.0.6	64.157.0.7
N	2	2	64.157.0.8	/30	255.255.255.252	64.157.0.9 - 64.157.0.10	64.157.0.11
O	2	2	64.157.0.12	/30	255.255.255.252	64.157.0.13 - 64.157.0.14	64.157.0.15
P	2	2	64.157.0.16	/30	255.255.255.252	64.157.0.17 - 64.157.0.18	64.157.0.19
Q	2	2	64.157.0.20	/30	255.255.255.252	64.157.0.21 - 64.157.0.22	64.157.0.23
R	2	2	64.157.0.24	/30	255.255.255.252	64.157.0.25 - 64.157.0.26	64.157.0.27
S	2	2	64.157.0.28	/30	255.255.255.252	64.157.0.29 - 64.157.0.30	64.157.0.31
Subnet027	2	2	64.157.0.32	/30	255.255.255.252	64.157.0.33 - 64.157.0.34	64.157.0.35
Subnet028	2	2	64.157.0.36	/30	255.255.255.252	64.157.0.37 - 64.157.0.38	64.157.0.39
Subnet029	2	2	64.157.0.40	/30	255.255.255.252	64.157.0.41 - 64.157.0.42	64.157.0.43
Subnet030	2	2	64.157.0.44	/30	255.255.255.252	64.157.0.45 - 64.157.0.46	64.157.0.47
Subnet031	2	2	64.157.0.48	/30	255.255.255.252	64.157.0.49 - 64.157.0.50	64.157.0.51
Subnet032	2	2	64.157.0.52	/30	255.255.255.252	64.157.0.53 - 64.157.0.54	64.157.0.55
Subnet033	2	2	64.157.0.56	/30	255.255.255.252	64.157.0.57 - 64.157.0.58	64.157.0.59
Subnet034	2	2	64.157.0.60	/30	255.255.255.252	64.157.0.61 - 64.157.0.62	64.157.0.63
T	2	2	64.157.0.64	/30	255.255.255.252	64.157.0.65 - 64.157.0.66	64.157.0.67
U	2	2	64.157.0.68	/30	255.255.255.252	64.157.0.69 - 64.157.0.70	64.157.0.71
V	2	2	64.157.0.72	/30	255.255.255.252	64.157.0.73 - 64.157.0.74	64.157.0.75
W	2	2	64.157.0.76	/30	255.255.255.252	64.157.0.77 - 64.157.0.78	64.157.0.79
X	2	2	64.157.0.80	/30	255.255.255.252	64.157.0.81 - 64.157.0.82	64.157.0.83
Y	2	2	64.157.0.84	/30	255.255.255.252	64.157.0.85 - 64.157.0.86	64.157.0.87
Z	2	2	64.157.0.88	/30	255.255.255.252	64.157.0.89 - 64.157.0.90	64.157.0.91

