Classless Addressing (Part 1)

Drawbacks of Classful Addressing

1. Lack of Internal Address Flexibility: Big organizations are assigned large, monolithic block of addresses that don't match well the structure of their underlying internal networks
2. Inefficient Use of Address Space: The existence of only three block sizes (classes a,b, and c) leads to waste of limited IP address space.
3. Proliferation of Router Table Entries: As the internet grows, more and more entries are required for routers to handle the routing of IP datagrams, which causes performance problems for routers. Attempting to reduce inefficient address space allocation leads to even more router table entries.