## IP subnet addressing

The subnetting of IP addresses can help to make better use of IP address space, for example on expansion of a network. It also allows IP addresses on networks to be divided into multiple smaller networks or subnets. The addresses for the subnets are derived from the main network address by applying a subnet mask, and as such belong to that organisation. Effective use of subnets may remove the need to obtain additional address space. Subnets also provide some advantages over one large network:

- smaller networks are easier to manage and troubleshoot
- network traffic overall is reduced
- network security can be applied more easily at the interconnections between the subnets.

Source URL: https://community-stg.jisc.ac.uk/library/janet-services-documentation/ip-subnet-addressing