VLSM (Variable Length Subnet Masking) allows you to divide an IP address space into subnets of different sizes, which can help you better utilize your IP address space. Here is a step-by-step guide on how to easily VLSM subnet IP addresses:

Step 1: Determine the Network Requirements Determine the total number of hosts required for each network and the total number of networks required.

Step 2: Determine the Network Address Range Determine the range of network addresses required based on the number of networks required.

Step 3: Determine the Subnet Mask Determine the subnet mask required based on the number of hosts required for each network.

Step 4: Assign IP Addresses to Each Network Assign IP addresses to each network based on the network address range and subnet mask.

Step 5: Verify the Subnet Configuration Verify the subnet configuration by ensuring that each network has the required number of hosts and that there are no overlapping IP addresses.

Here is an example of how to VLSM subnet IP addresses:

Suppose you have a network with the IP address 192.168.1.0/24, and you need to create three subnets with the following requirements:

* Subnet A: 60 hosts
* Subnet B: 30 hosts
* Subnet C: 10 hosts

Step 1: Determine the Network Requirements

* Subnet A: 60 hosts -> Requires at least a /26 network
* Subnet B: 30 hosts -> Requires at least a /27 network
* Subnet C: 10 hosts -> Requires at least a /28 network

Step 2: Determine the Network Address Range

* Subnet A: 192.168.1.0 - 192.168.1.63
* Subnet B: 192.168.1.64 - 192.168.1.95
* Subnet C: 192.168.1.96 - 192.168.1.111

Step 3: Determine the Subnet Mask

* Subnet A: /26 subnet mask -> 255.255.255.192
* Subnet B: /27 subnet mask -> 255.255.255.224
* Subnet C: /28 subnet mask -> 255.255.255.240

Step 4: Assign IP Addresses to Each Network

* Subnet A: 192.168.1.1 - 192.168.1.62 (60 hosts)
* Subnet B: 192.168.1.65 - 192.168.1.94 (30 hosts)
* Subnet C: 192.168.1.97 - 192.168.1.110 (10 hosts)

Step 5: Verify the Subnet Configuration

* Ensure that there are no overlapping IP addresses in any of the subnets and that each subnet has the required number of hosts.

That's it! By following these steps, you can easily VLSM subnet IP addresses.