

Video - Creating Two Equal-sized Subnets (2 min)

You are a network administrator and you are tasked with creating two equal-sized subnets from the network address 192.168.1.0 /24. The first thing we'll do is write out the subnet mask in binary. You can see we have 24 ones going from left to right. What we'll want to do to subnet this network is borrow bits from the host portion of the subnet mask here. You can see that I've put up a table with the eight bit place values of the eight bits in the last octet. If we borrow one bit from the host portion And change this zero to a one, we've now changed the subnet mask from /24 to /25. By borrowing one bit from the host portion, We have two to the first power, or 2 subnetworks that we create. The subnetworks will go up by the place value of this binary digit. We can see that the place value is 128 so the networks, or subnetworks, will go up by 128. In other words, the first network will be the "zero" network, /25, and the second subnet will be 128 /25. We've now created two subnetworks from the original 192.168.1.0 /24 network. We can use these subnets now for the two networks coming off of router R1 here.