

ISE CERTIFICATION COURSE DETAILS

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COURSE NAME:	NETWORKS CONCEPT AND PROGRAM	DATE:	21/05/2020

SCREENSHOT:

Network Programming from Scratch in C

Lecture VDO 3
Subnetting & IP address Maths -> Recommended Mask Value to use for P2P links

- Point to Point Links
 - It is a very common scenario in networking that two devices, say L3 routers, are connected using point to point links

The diagram shows two routers, Router1 and Router2, connected by a point-to-point link. Router1 has IP2 M2 (11.1.1.1/24) and Router2 has IP1 M1 (11.1.1.2/24). Handwritten notes show 'Mask = 24' and '254' with a calculation '254 - 2 = 252' and a final note '30'.

- The two interfaces of the two routers have the same network ID – hence, they are in same subnet
- Point to Point ends are always in same subnet !!
- This is a straight wire which connects the two ends. No room to connect the 3rd device to the subnet
- So, maximum no of devices could be present in subnet with mask 24. theorectically = 254, but practically = 2 in this case
- So, why use /24 as a mask. use mask value which strictly allows two devices in the subnet
- Such a mask value is = 30. Thus, point to point links, mask value used is usually 30

BRIEF REPORT:

- 1). A router is connected to two or more data lines from different IP networks. When a data packet comes in on one of the lines, the router reads the network address information in the packet header to determine the ultimate destination. Then, using information in its routing table or routing policy, it directs the packet to the next network on its journey.
- 2). The most familiar type of IP routers are home and small office routers that simply forward IP packets between the home computers and the Internet. An example of a router would be the owner's cable or DSL router, which connects to the Internet through an Internet service provider (ISP).
- 3). More sophisticated routers, such as enterprise routers, connect large business or ISP networks up to the powerful core routers that forward data at high speed along the optical fiber lines of the Internet backbone.