

# 3Com® SuperStack® 3 Switch 4400: Prioritizing Video Traffic over the LAN

## APPLICATION BRIEF

### The Problem – Poor Quality Video over the LAN

Emerging applications such as video over the LAN are becoming increasingly popular for entertainment, employee training and corporate communications activities. Due to the high bandwidth required for video

streaming, other concurrent activity on the LAN, such as file transfers and e-mail, often cause the video transmission to break up or even lose picture and sound altogether.

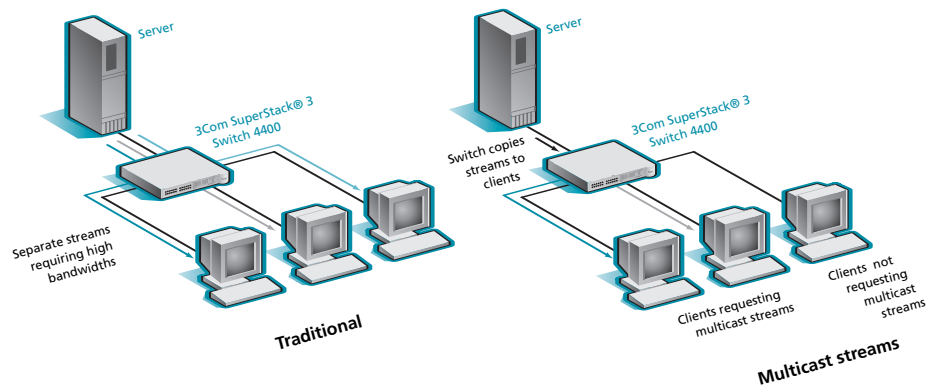
### The Solution

To maintain an effective video stream over the corporate LAN, two techniques must be employed: QoS (Quality of Service) and Multicasting.

The 3Com® SuperStack® 3 Switch 4400 has advanced QoS capabilities which allow the switch to identify traffic based on IP address, Physical Port, Protocol, or Application. Then using the 802.1p protocol, the switch can assign a priority level to all video traffic. This ensures that the video traffic will flow through the LAN infrastructure with no interruption, even during times of heavy network usage.

The other prioritization technique is called multicasting. The SuperStack 3 Switch 4400 employs a subscription type of multicasting, whereby a client sends a request to join a multicast stream. The SuperStack 3 Switch 4400 then identifies this request and intercepts the packet (this is known as IGMP snooping). The switch then takes on the role of packet duplication, effectively copying the multicast stream to those who request it. This has the direct effect of saving precious LAN bandwidth, and makes certain the network is being used efficiently at all times.

### Example Configuration



### Want to know more?

For further information on this 3Com SuperStack 3 Switch 4400 feature and its use, please refer to this entry in 3Com Knowledgebase:

<http://knowledgebase.3com.com>, Solution ID: 2.0.75834900.3269458