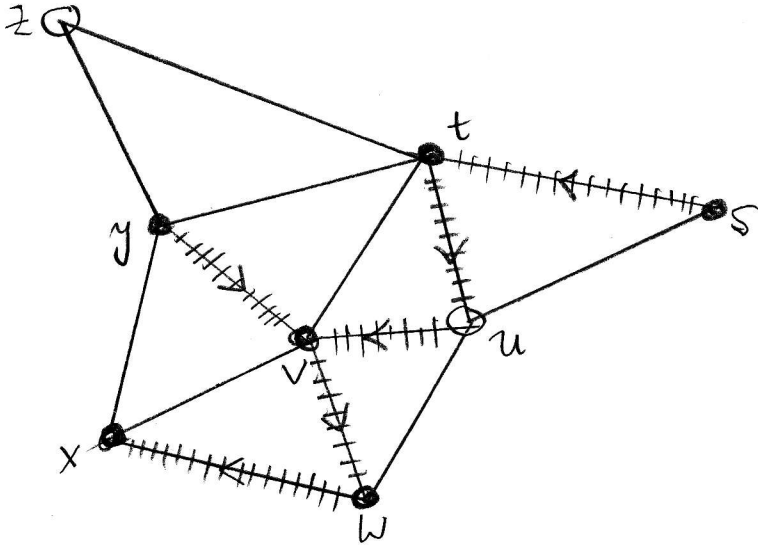


## Worked Out Example 4.6- Forming a Group Shared Tree for Multicast



Nodes with black circles (w, x, y, v, s, t) have hosts belonging to the multicast group. Other nodes (z, u) do not have such hosts

Nodes with hosts belonging to the multicast group choose a center node among them, say x

They send tree-join messages to x along the least cost paths – wx, vwx, yvwx, tuvwx, stuvwx

The resulting multicast group shared tree is shown shaded

Note that z did not send a tree-join message and so edges zt and zy are not part of the group shared tree

Whereas, even though u did not send a tree join message, it is on the shortest path to x from some other nodes and so is obliged to form part of the group shared tree and must carry traffic belonging to the group