Network Sending Layout

```
ether Pkt

    ip Pkt

        icmp Pkt
```
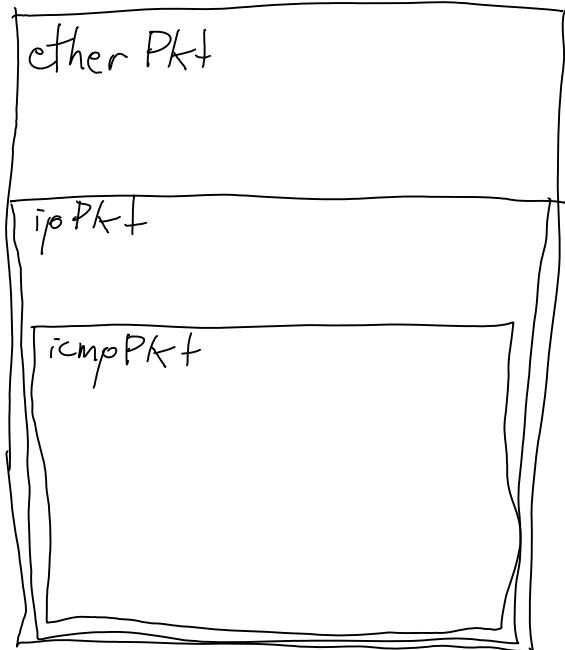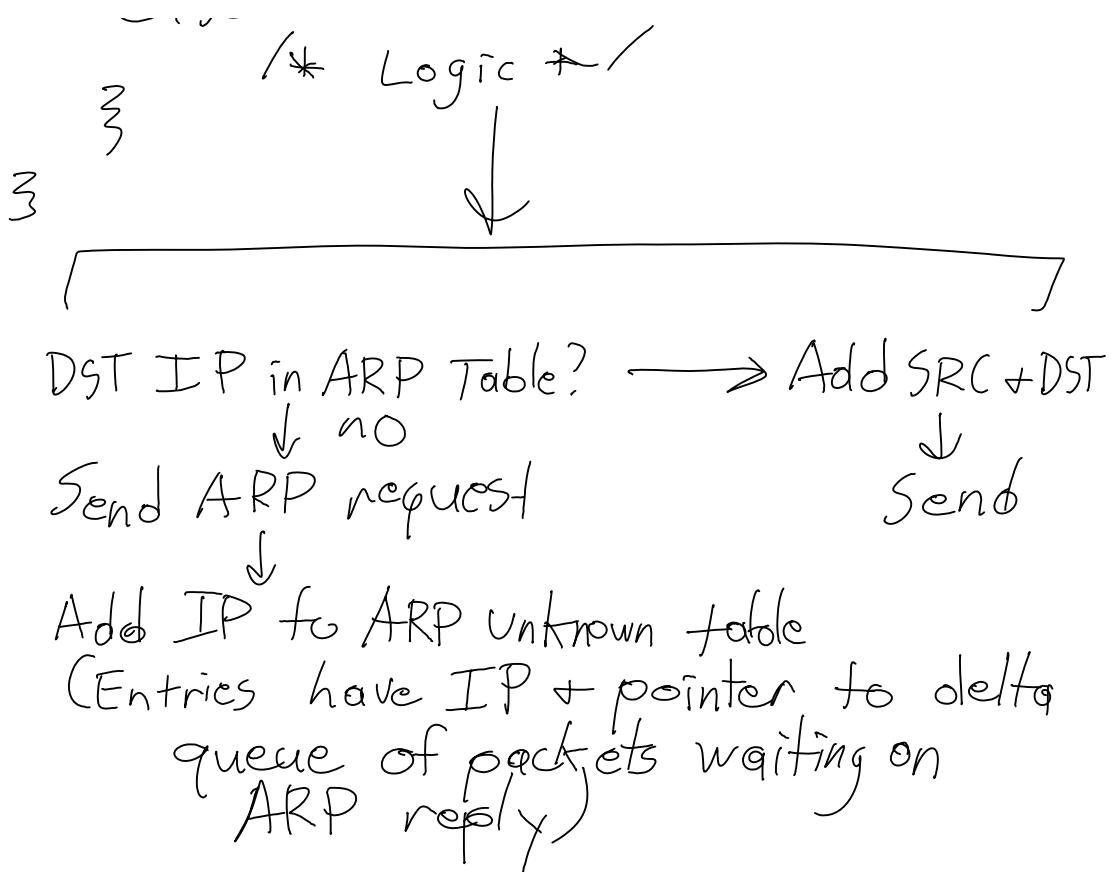
```
ulong  netSend (struct etherPkt *pkt,
                        ushort type)
{
    switch (type)
    {
        case REPLY:
            /* swap SRC & DST
             * Endian conversion of type
             * Send
             */
        case ARP:
            /* Enter SRC & DST
             * Add type
             * Send
             */
        case IP:
```

```
...
}
}
}
```

/* Logic */

↓

DST IP in ARP Table? ——→ Add SRC & DST

   ↓ no   ↓

Send ARP request   Send

   ↓

Add IP to ARP unknown table
(Entries have IP + pointer to delta
     queue of packets waiting on
     ARP reply)

arpTimer
  Daemon that runs every second
  to age ARP table entries +
  pending packets in the ARP unknown
  delta queues

arp Recieve (currently arpDaemon)
  :
/* receive ARP reply
 * Update/Add to ARP table
 * Is IP in ARP unknown table?
    Yes — call netsend on all
      packets in delta queue