```
protocol  ip {                  /* declaration of datagram header */
    vershl    { ip[0:1] }
    vers      { ( vershl & 0xf0 ) >> 4 }
    tmphl     { ( vershl & 0x0f ) }
    hlen      { tmphl << 2 }
    totlen    { ip[2:2] }
    ident     { ip[4:2] }
    frags     { ip[6:2] }
    ttl       { ip[8:1] }
    proto     { ip[9:1] }
    cksum     { ip[10:2] }
    source    { ip[12:4] }
    dest      { ip[16:4] }

    demux   {
    ( proto == 6 )          { tcp at hlen }
    ( proto == 17 )         { udp at hlen }
    ( default )             { ipunknown at hlen }

    // note: other protocol types can be added here

    }
}                               // end of datagram header declaration
```