

How do the packets in the VoIP network get priority to avoid break up, echo, static, or dropout?

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Complex question. The packets have header and tail bits that denote the packet content. Different types of packets have varying headers, based on their priority. For instance, data is generally low in priority as it is not a big issue if appears a tenth of a second later than other traffic. No one would know, as the data would still fill the screen at standard rates anyway. The next higher priority is voice. It has a header bit and tail bit that identify it as higher priority. This allows it to arrive before data and not sound choppy or degraded. Video is a higher priority yet. All this sounds easy and logical., but in the real world the traffic is subject to a category of issues called "quality of service"(QoS), and net neutrality. QoS, is created at the source, as the packets are formed, usually without any error, but may be delayed or degraded out in the Internet , based on issues and policies involving the turf of others. The policy varies, but is based mainly on the way they set their servers and how they prioritize outside produced signals, compared to the signals that the produce themselves. Sometimes outside signals get second class treatment. In a perfect World, all signals would be properly headed, and properly routed on time. Due to many issues, this does not happen 100% of the time... the good news is it is getting better as we go. Five years ago echo, and dropout, were standard operating procedure. Most of this is sorted out now, although net neutrality, will need to be the international standard ultimately, if all data, voice and video bits are to be sent on time, and in sync.