

Bandwidth sketch

G.711 20 ms payload is 160 bytes.

IP, UDP, and RTP add 40 bytes.

Layer 3 is about 80 kbit/s.

An 18-byte Ethernet header makes about 87.2 kbit/s.

Size the priority queue from admitted calls.

Formula: $(\text{payload} + 40 + L2) \times 8 \times (1000 / \text{ptime}) / 1000$.

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Sources and go deeper

Opened 2026-10. A row marked confirm has no link, because that page was not verified.

ITU. ITU-T G.711, pulse code modulation of voice. <https://www.itu.int/rec/T-REC-G.711>. last checked 2026-10

RFC. RFC 3550, RTP. <https://www.rfc-editor.org/rfc/rfc3550>. last checked 2026-10

RFC. RFC 4594, DiffServ service classes. <https://www.rfc-editor.org/rfc/rfc4594>. last checked 2026-10

Community. Cisco Community, Collaboration knowledge base.

<https://community.cisco.com/t5/collaboration-knowledge-base/tkb-p/4691-docs-collaboration-voice-video>. last checked 2026-10

Wikipedia. Quality of service (Wikipedia). https://en.wikipedia.org/wiki/Quality_of_service. last checked 2026-10

Cisco. Enterprise QoS SRND book. confirm. The Enterprise QoS SRND path returned HTTP 404. last checked 2026-10