

Each node maintains voting summary, as key value and list of IPs that have casted votes. [IPs or anything else to determine uniqueness of vote]

Example:

"ALICE" 3

"BOB" 5

"CAT" 2

IPs: 0.0.0.1, 0.0.0.5, ... [Length of IPs list = Number of Total Votes Casted]

As per Gossip Protocol this Summary gets broadcasted to let's say 5 other peers, they "**Combine**" incoming summary with their own summary and broadcasts again. This way process continues...

To end the process, Design a function to check if a peer has received information of all votes. When, this gets true, disconnect it from network and show result locally.

Maximum Message Size (Voting Summary Size) for system of N Nodes:

= N[as at max there can be N different candidate names]\*(256[candidate name] bits + 8 bits [value]) + N\*32bits

= N[256 + 8 + 32]bits

For 100k PCs Maximum Message size ~3.75MB.