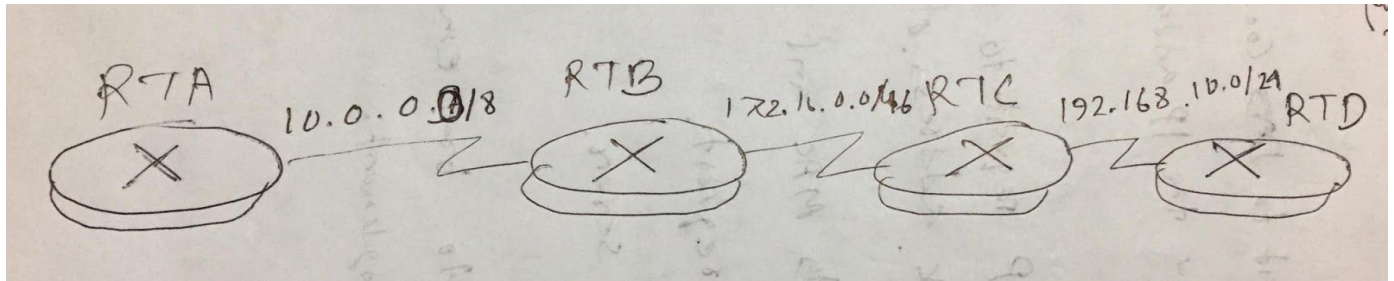


Let:



Here, the source IP is 10.0.0.1, and the destination IP is 192.168.10.2. If the TTL is 1, then RTA will forward the IP packet and will go to RTB. Destination IP will be 10.0.0.2. The destination IP is not 192.168.10.2. It will decrement the TTL by 1 and it will be 0 and send back to the source RTA with an ICMP time exceeded message. In RTA, the traceroute program increments the TTL by 2 and resends the ICMP Echo request packet. This time RTB decrements TTL by 1 and if not 0 it will be 1. Then, it will look up the destination IP address in its routing table and forward it to the next router. RTC will match the IP with the destination IP and it will decrement TTL by 1 and it will be 0 and sends the ICMP back to the source. RTA will increment TTL by 1 and it will be 3 and this time RTC decrements TTL by 1 and it will not be 0 and it forward to RTP, which Sacramento TTL but RTD notices the dest IP 192.168.10.2 is its own interface and RTP sends the packet to the UPP process. This is how TTL works in traceroute.