

COMPOSITIONAL CONTROL OF IP MEDIA

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DYNAMIC, POINT-TO-POINT MEDIA SERVICES OVER IP

telephony

home networks

computer-supported cooperative WORK

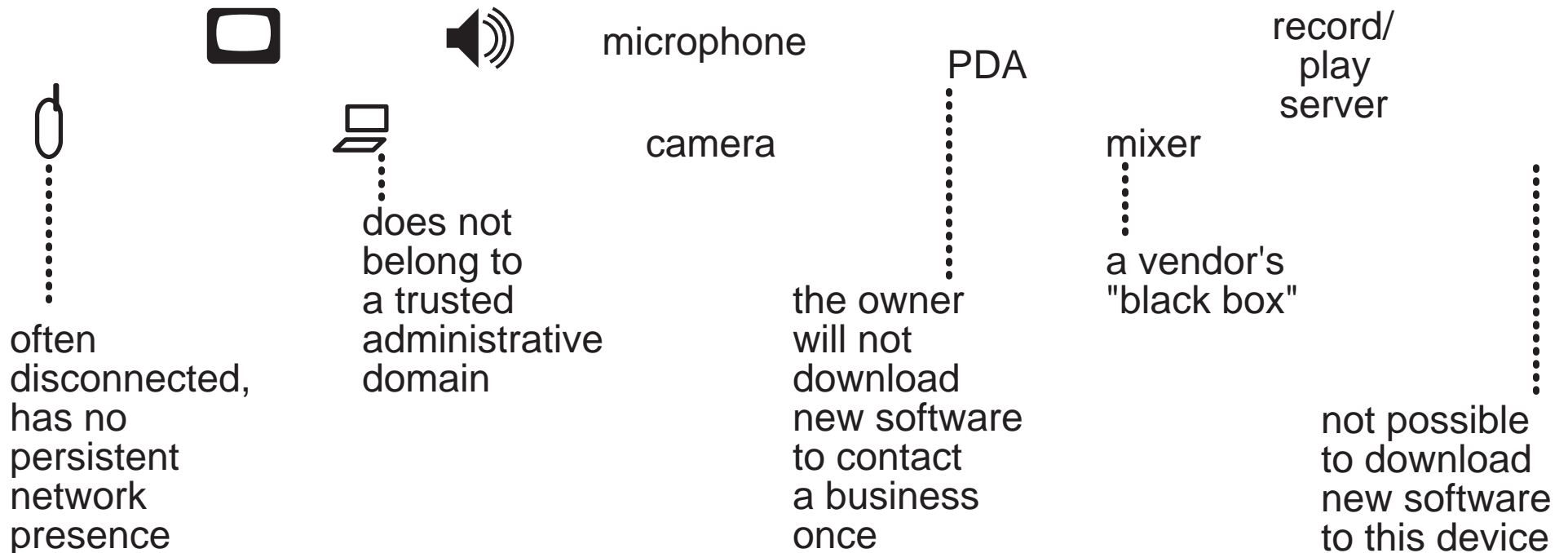
computer-supported cooperative PLA Y

teleconferencing
telemonitoring
distance learning
virtual reality

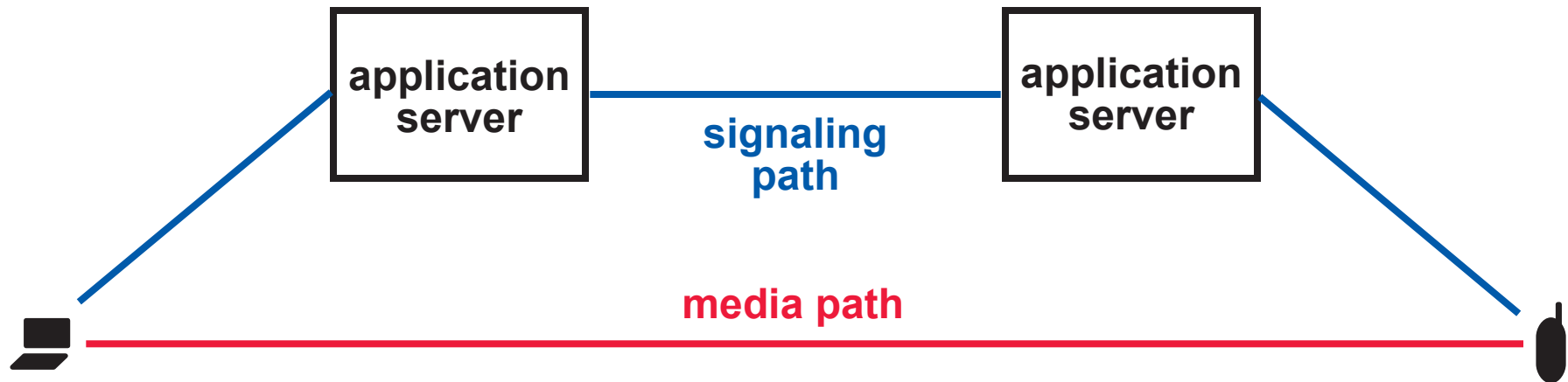
collaborative television
multiplayer games
networked music performance

THESE SERVICES USE A DIVERSE SET OF MEDIA ENDPOINTS

CAN ALL THE SERVICES BE IMPLEMENTED IN THESE ENDPOINTS, AS IS OFTEN ASSUMED?



IN PRACTICE, THESE SERVICES HAVE SIGNALING/MEDIA SEPARATION



SIGNALING PATH

often passes through several servers

low bandwidth + requires reliability
= often uses TCP

MEDIA PATH

should be the shortest end-to-end path

high bandwidth + tolerates packet loss
= often uses RTP

OFTEN, THE APPLICATION SERVERS
DO NOT KNOW ABOUT EACH OTHER

belong to different administrative
domains

serve different users

are produced by different vendors

are added and/or updated individually