

Voiceover internet protocol vs traditional system

Cost comparison based on a new office building within London, with 500 handsets/users and a conventional local area network.

	quantity	unit £	total £		quantity	unit £	total £
Voiceover internet protocol				Traditional system			
Capital expenditure				Capital expenditure			
Internet protocol (IP) handsets (medium spec)	500	147	73,500	Digital phone/handsets (medium spec)	500	188	94,000
Gateways	2	3,140	6,280	PBX	2	31,400	62,800
Switches	9	2,900	26,100	Voice backbone	500	68	34,000
Server (including software)	2	9,400	18,800	Total			190,800
Total			124,680	Operating expenditure			
Operating expenditure				Maintenance	5 yrs	20,900	104,500
Maintenance (gateway)	5 yrs	1,600	8,000	Average office departmental re-organisation (Over five years)	5 yrs	12,960	64,800
Average office departmental re-organisation	5 yrs	-	-	Total OPEX			169,300
Total			8,000	Total typical cost for VoIP			360,100
Total typical cost			132,680	Cost per user			720
Cost per user			265	Total savings using IP PBX			227,420

Component	Wired network			Wireless network (wi-fi)		
	quantity	unit £	total £	quantity	unit £	total £
Switches, including cabinets etc	167	4,470	746,490	25	5,720	143,000
Cabling, including frames	4,000	190	760,000	430	260	111,800
Wired network card/adaptor	2,500	29	72,500			
Wireless network card/adaptor				2,500	47	117,500
Wireless access points				250	565	141,250
Power over ethernet adaptors				40	37	1,480
Wireless network management software				1	52,400	52,400
Total cost			1,578,990			567,430
Total saving of installing a wireless network in lieu of a wired network						1,011,560
Cost per user			£632			£227

Typical cable outlet rates

Cable type	Floor grid	Average run	£ per outlet
CAT6 (Copper)	2.4 m	60 m	£65-95
4-core duplex (50/125 micron) multimode (fibre)	2.4 m	60 m	£150-200