BOCs BUDGET $56 BIL FOR NETWORK UPGRADES

Technology changes and subsequent network efficiencies are spurring capital spending in central office and plant environments.

EDITOR'S NOTE:
Source of BOC forecasts used in this article are from Exhibit F of CC Docket 89-624, prescribing the rate of return for LEC interstate access services. A copy of the order, including figures, may be ordered from ITS, 2100 M. St. NW, No. 140, Washington DC 20037; phone (202) 857-3800.

BY LAIRD DURHAM

IN December 1990, the FCC granted the Bell operating companies (BOCs) an 11.25% rate of return for interstate access services. In support of their request for a 12% rate, the seven RBOCs (regional Bell operating companies) submitted to the FCC plans for modernizing, replacing and expanding subscriber and trunk carrier systems. As a secondary purpose, these submissions provide a good view on technological changes the RBOCs are planning and on growth they expect from the new systems.

Overall expenditures

The RBOCs expect to spend $56 billion from 1991 through 1994 for loop and interoffice plant. Of that total, $37 billion (66.1%) will be used to grow the network. Modernization efforts will consume $14 billion (25.1%), and $5.5 billion (8.8%) will go toward plant replacement *(Figure 1)*.

In some cases only a subtle difference exists between the terms *modernization* and *replacement*—for example, replacing an aging analog switch or analog subscriber carrier system with digital equipment. Other modernization is more profound, such as the conversion of switches to integrated digital loop carriers (IDLCs) and the concurrent elimination of central office terminals (COTs), or the upgrading of offices to Signaling System 7 (SS7) and the increased provision of equal access.

Some modernization efforts will become part of the growth figures, as the majority of new equipment used for growing the network will be based on new technologies.

Although $56 billion over the next four years is an enormous number, it is roughly the same amount as the seven RBOCs invested during the past four

TABLE 1

COMBINED BOC PLANT STATISTICS (1990-94)

	1990	1994	% OF TOTAL (1994)	1990-94 CAGR
CENTRAL OFFICES				
No. of COs (total)	**9406**	**9366**	**100%**	**−0.1%**
No. of digital/ electronic COs	5382	7074	76%	7.1%
No. of ISDN COs	426	2269	24%	51.9%
LOCAL LOOP				
No. access lines served (total)	**105,844,000**	**118,961,000**	**100%**	**3.0%**
Digital/electronic access lines	45,545,000	68,028,000	57.2%	10.6%
Fiber-equipped loop channels	6,059,000	18,527,000	3.3%	32.2%
SS7 access lines	36,706	86,964	73.1%	24.1%
ISDN access lines	496,000	2,218,000	1.9%	45.4%
No. local loop working channels	119,650,000	135,304,000	114%	3.1%
No. local loop equipped channels	184,553,000	203,092,000	171%	2.4%