

## PBX Systems

### Branch Exchange Switches

PBXs, KSUs, and PABXs contain line cards that support various transmission protocols such as ISDN, T1/E1, HDSL, and ADSL (Figure 3.46). PBXs also have features such as a POTS (plain old telephone service) pull-through which allows stations to have outside line access in the event of power failure. All incoming lines to the PBX are subject to environmental hazards such as lightning and power cross.

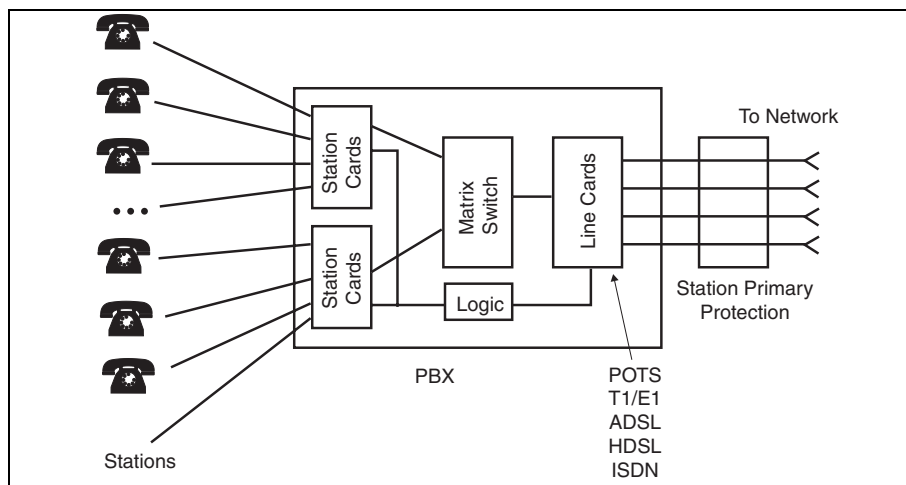


Figure 3.46 PBX Overview

### Protection Requirements

Branch exchange switches should be protected against overvoltages that can exceed 800 V and surge currents up to 100 A.

The following regulatory requirements apply:

- TIA-968 (formerly known as FCC Part 68)
- UL 60950

### Branch Exchange Reference Circuit

See the following sections of this data book for interface circuits used to protect of PBX line cards:

- For POTS protection, see "Customer Premises Equipment (CPE)" on page 3-3.
- For ADSL protection, see "ADSL Circuit Protection" on page 3-7.
- For HDSL protection, see "HDSL Circuit Protection" on page 3-8.
- For ISDN protection, see "ISDN Circuit Protection" on page 3-10.
- For T1/E1 protection, see "T1/E1/J1 Circuit Protection" on page 3-14.
- For Station Protection, see "Analog Line Cards" on page 3-18.