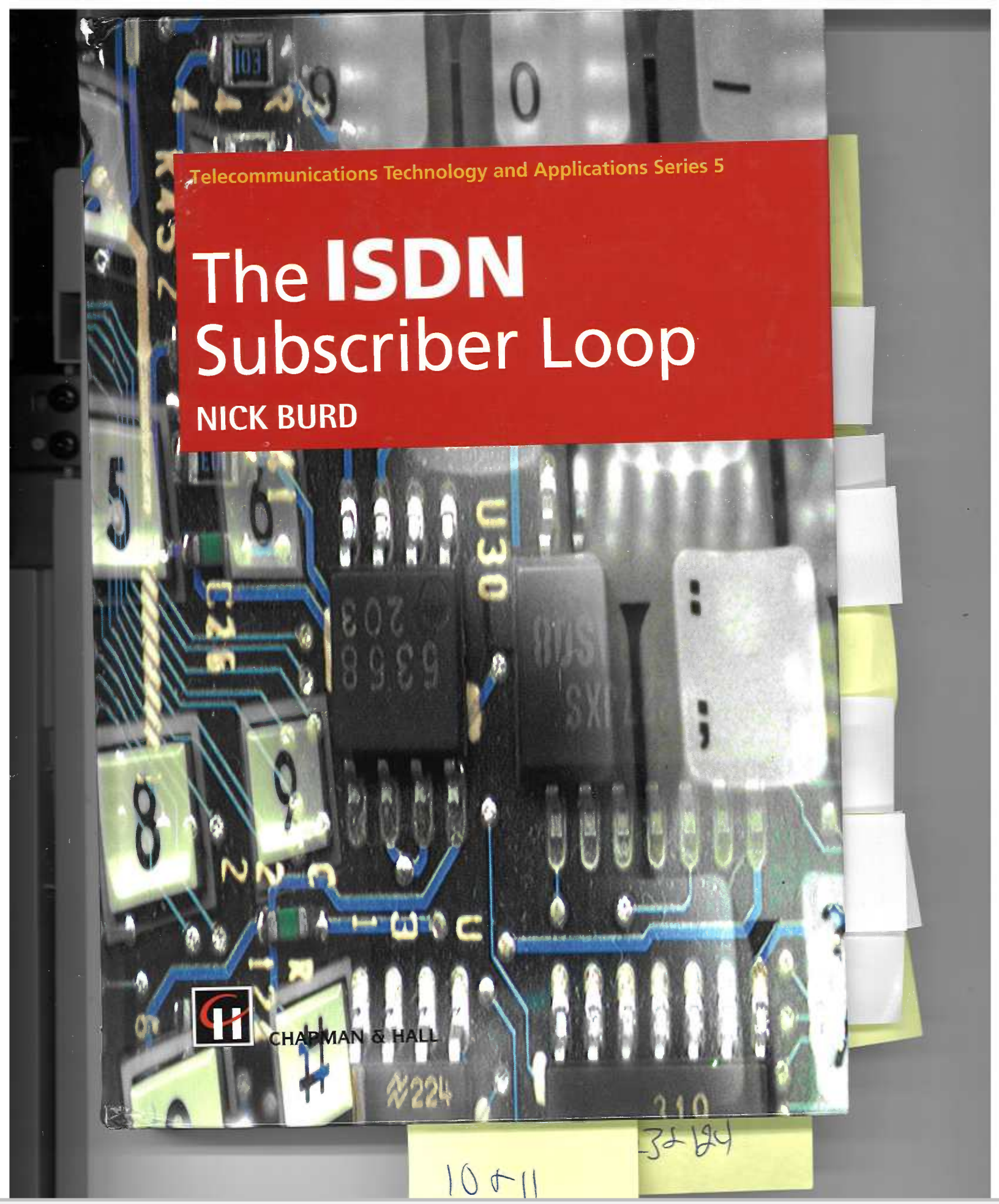

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be applied by splitting each line-side transformer winding into two equal halves and connecting them with a capacitor. The capacitor enables AC signals to pass without attenuation but blocks DC voltages. Components are added to this configuration to protect the circuitry from excessively high voltages caused by lightning strikes.

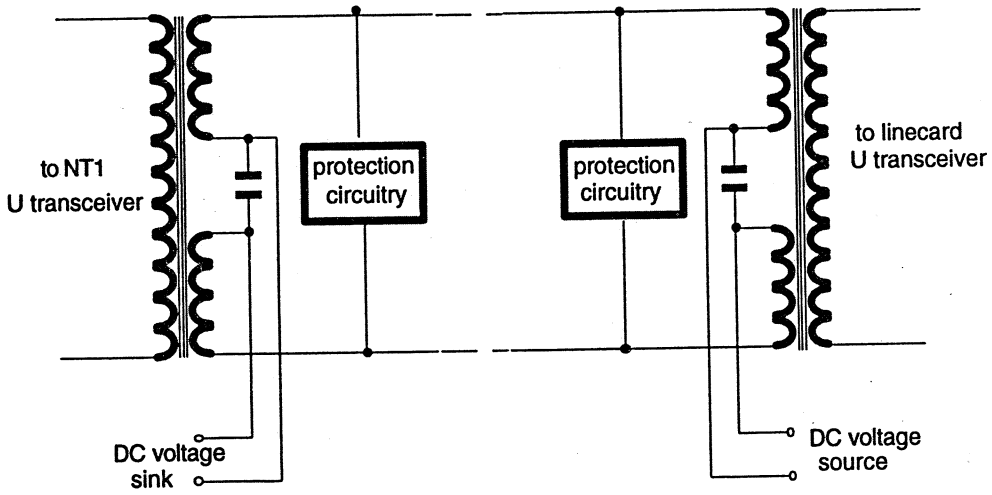

Fig. 4.13 Power feed configuration at the U interface.

In European ISDNs, the U transceiver side of an NT1 for both 2B1Q and 4B3T systems will typically be powered remotely from the network across the transmission cable, thus allowing the network operator to maintain full control over the U transmission system at all times. The S/T user–network interface may under normal conditions be powered locally from the NT1 using a local power source such as mains or batteries, and is backed-up with remote power from the network under emergency power conditions where the local power source fails. When active, the NT1 must consume no more than 500 mW of power from the network, and in a deactivated state must consume no more than 120 mW. Under emergency power conditions when the NT1 is expected to also power the user's designated terminal across the user–network interface, then the power consumption of an active NT1 is allowed to rise to a maximum of 1.1 W[8]. This power is delivered as a DC voltage and current that varies between different ISDNs due to the different safety requirements and subscriber loop configurations. The minimum voltage at the NT1 required for correct operation is 28 V, while the