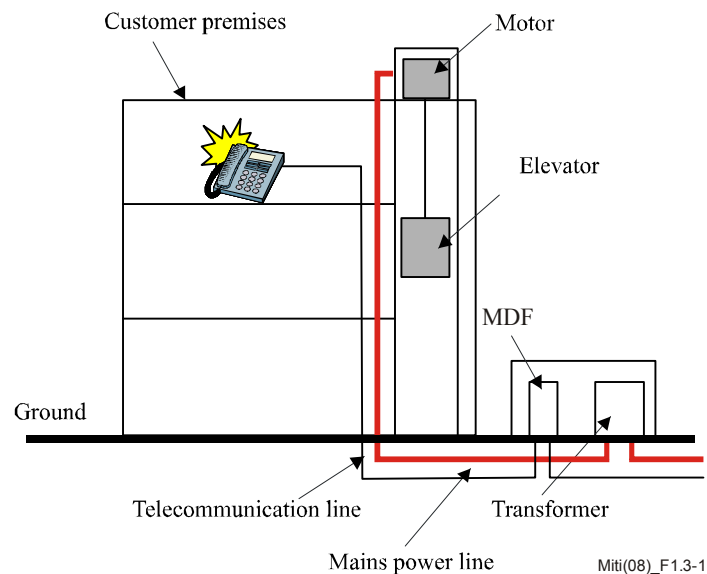


<b>Case study #</b>	1.3
<b>Title</b>	Acoustic noise troubles caused by switching noise of an elevator (lift)
<b>Type of trouble</b>	Acoustic noise.
<b>Source of trouble</b>	Elevator.
<b>System affected</b>	Customer's equipment.
<b>Location</b>	Customer premises.
<b>Keywords</b>	Elevator, mutual coupling, switching noise.
<b>Version date</b>	2004-01-01

### System configuration

Acoustic noise trouble occurred at a customer premises. The customer complained that the acoustic noise could sometimes be heard; however, it was not clear what the trouble source was. The system configuration of this issue is shown in Figure 1.3-1. At the customer premises, the telecom lines and power mains cable for the elevator (lift) were parallel in the cable duct. The motor of the elevator used a switching power source. The telecom line connected to the telephone set was also connected to the MDF where the power transformer was located. The telecommunication line was changed; however, the acoustic problem continued.



**Figure 1.3-1 – System configuration**