

Case study #	1.2
Title	Acoustic noise troubles caused by switching noise of digital subscriber unit (DSU)
Type of trouble	Acoustic noise.
Source of trouble	DSU.
System affected	Customer's equipment.
Location	Customer premises.
Keywords	DSU, mutual coupling.
Version date	2004-01-01

System configuration

Acoustic noise trouble occurred at a customer's premises. The system configuration is shown in Figure 1.2-1. A remote terminal (RT) was used, as well as single mode fibres for the trunk lines. Metal lines were distributed using a metallic internal cable. Telephones, facsimile machines, and DSU were connected to the cable. There was no radio base station around the location. The electric field strength was not so high. After an ISDN service was introduced, the acoustic noise problem occurred. The line connected to the telephone was changed; however, the noise problem still continued.

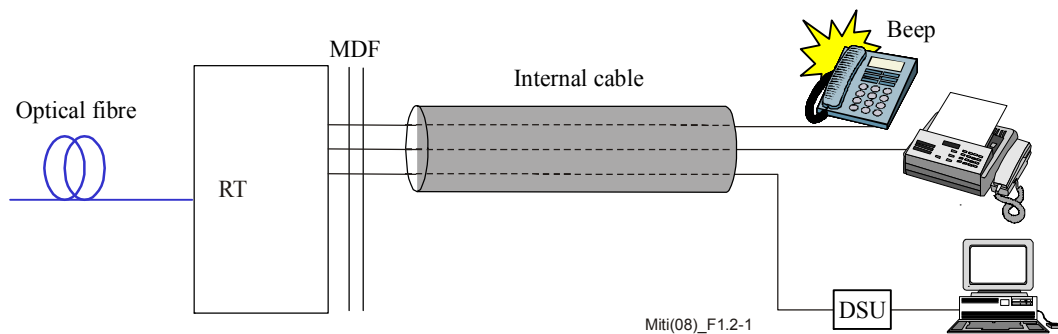


Figure 1.2-1 – System configuration