

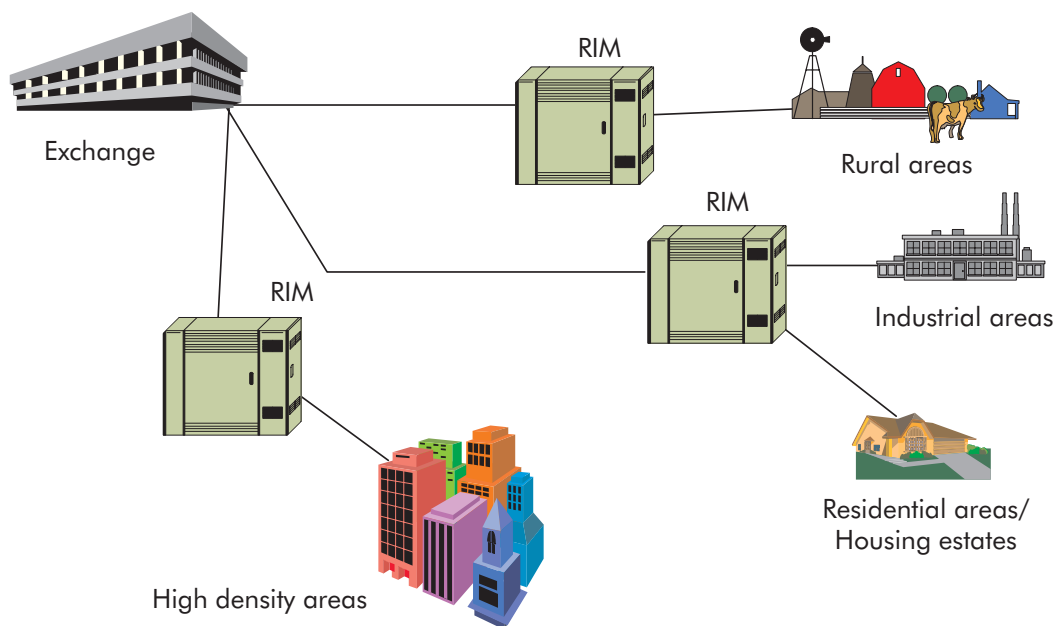
## 2 System Application

## 2.1 Introduction

There are three main system applications for the RIM:

- ▶ Main cable relief using optical fibre.
- ▶ Small exchange replacement.
- ▶ Remote access for Special Services.

RIM provides a means of effectively moving the switch closer to the customer. As such the RIM may be used in typical areas as illustrated below:



## 2.2 Main Cable Relief Using Optical Fibre

The wide range of special services supported by the RIM makes it ideally suitable for quickly developing commercial and industrial areas, particularly where fibre is already in place. In established urban areas where new developments are increasing density beyond the existing cable capacity, the RIM provides cost effective main cable relief servicing up to 480 subscribers from a single fibre.

In this application the RIM may be used in non-integrated or integrated modes. The integrated protocols used are ESM and RSU.

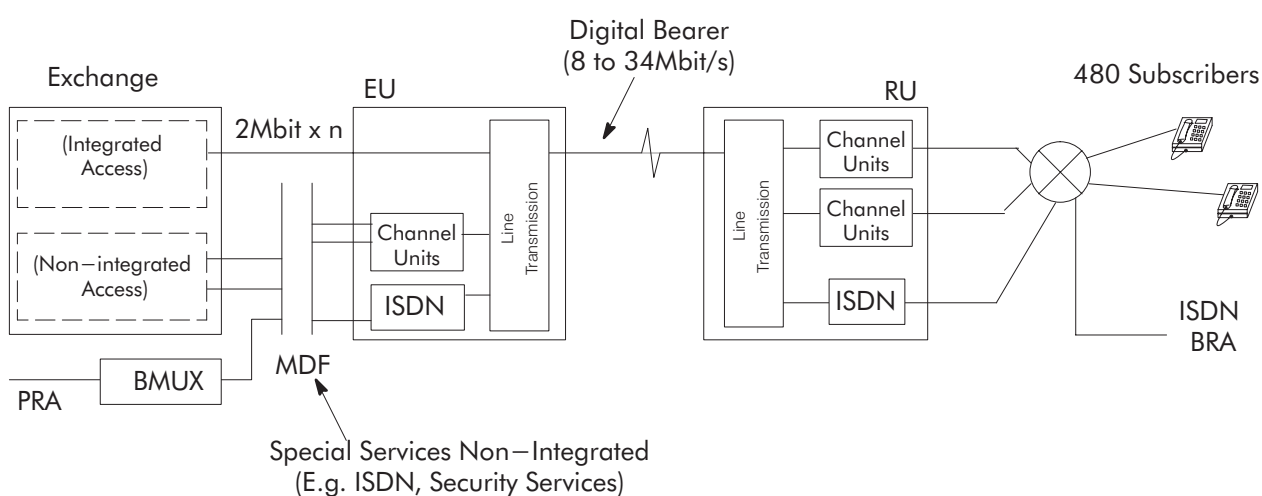


Figure 2-1 Integrated and Non-integrated Pair Gain Application

## 2.3 Small Exchange Replacement

RIM can replace small analogue exchange equipment, or be a substitute for establishment of a new exchange building serving up to 480 customers. In this application the RIM is typically used in integrated mode but for one 2 Mbit/s non-integrated link to provide special services.

Using a RIM as a small exchange has the following benefits:

- ▶ Much smaller number and variety of exchanges.  
This simplifies the communications network reducing inventory, maintenance and repair costs and service requirements.
- ▶ Replacement of electro-mechanical / obsolete exchanges.  
This leads to an increased digitalisation of the network giving the capability of providing a full range of services (including ISDN) to all subscribers. When existing exchanges are replaced, the building may be used to house the RIM remote unit.

## 2.4 Remote Access For Special Services

RIM can be dedicated to provide Special Services such as Spectrum, OnRamp or DDN to small pockets of customers who are remote from the existing switching centres. This application of RIM extends the coverage for Special Services for a relatively small startup cost.

In general such dedicated RIMs operate in fully non-integrated mode, however V5.2(–) protocol under Release 8.2 supports integrated ISDN.