

## Step 13

# Evaluate the Technical Aspects

In addition to a financial evaluation, you must also evaluate intangible technical aspects that cannot be easily reduced to monetary terms, such as:

- implementation risk,
- flexibility,
- operational considerations, and
- reliability.

Evaluating each alternative against these terms reveals which alternatives may have added value and will ensure that each alternative is generally suited to the requirements.

### 13.1 Implementation Risk

Implementation risk can be examined by asking such questions as:

- Is all equipment field-proven and in production, or is some being developed, or still to be developed? Are lists of users and contacts available to verify field performance?
- Does the alternative depend on other projects being completed on time?
- Does implementation depend on the availability of special equipment, transportation, labour, or suitable weather?
- How complex are field installation and alignment procedures?

### 13.2 Flexibility

Flexibility refers to the technical and economic ease with which an alternative solution can accommodate, or be adapted to, changing conditions or requirements.

The need for flexibility stems from uncertainty in forecasts for demand, service requirements, technological change, etc. The longer the time span, the more uncertain the forecasts and, thus, the greater the need for flexibility.

In examining the flexibility of an alternative, ask questions such as:

- What are the minimum expansion increments and how expensive are they to procure and install?
- What is the maximum capacity before replacement is necessary?
- Can the product be enhanced to provide additional features and capability, such as ISDN?
- Will the supplier support product evolution with backward compatibility?
- What are the equipment and labour costs to reconfigure circuits or change operation?
- Can the system be easily taken out of service and relocated or reused to expand facilities at other locations?

### 13.3 Compatibility

Compatibility can be examined by asking the following questions:

- Is there compatibility with existing facilities for successful interworking (signalling, numbering, charging, etc.)?
- Is the system compatible with CCITT and CCIR recommendations to help ensure continuing compatibility with future developments?
- Does the system conform to the administration's technical standards as well as with national standards and safety codes?
- Is there compatibility with regulatory constraints and policy?