

- Pricing, ticketing, and production of similar documents, and
- Free text.

The Unicorn message set includes air, ferry, rail, most types of accommodation, car hire, package holidays, insurance, for sale of associated travel products and financial transactions such as statements and payment remittances. In addition, there are messages that allow the remote printing of travel documents, such as paper tickets and automated ticketing and boarding (ATB2). Any principal, agent, intermediary, or service provider is free to use a Unicorn message. Table 11.10 shows the functionality of Unicorn messaging.

11.3 Revenue-Opportunity Assessment and Revenue-Benefits Measurement

Because RM systems are expensive, time-consuming to implement, and require organizational changes that are disruptive to normal operations, it is natural for senior management to question whether the benefits justify the costs. It is important, therefore, to analyze a RM investment before implementation and then later, after the system is up and running, to validate the system benefits. The first type of analysis, performed during the preimplementation phase, is called the *revenue-opportunity assessment* and the latter, done post-implementation, is called *revenue-benefits measurement*. Most RM vendors perform a revenue-opportunity assessment as part of an engineering study phase and follow up with a benefits measurement study after system cutover.

11.3.1 Revenue-Opportunity Assessment

There are two basic approaches to revenue-opportunity assessment. The first is based on a *perfect-hindsight estimate* of revenue potential. This estimate is constructed as follows. First, historical data is analyzed, and corrections for censoring are made to estimate the control-unconstrained underlying demand. In a price-based RM setting, one fits demand functions directly to historical data based on observed price responses. Given this *a posteriori* estimate of demand, it is then possible to analyze the quantity or price controls that *would have* been optimal with perfect knowledge of demand. In quantity-based RM, this usually involves solving a deterministic linear integer program as discussed in Section 3.3.1 to optimally allocate capacity; in price-based RM, deterministic dynamic-pricing models of the type discussed in Section 5.2.1 can be used.