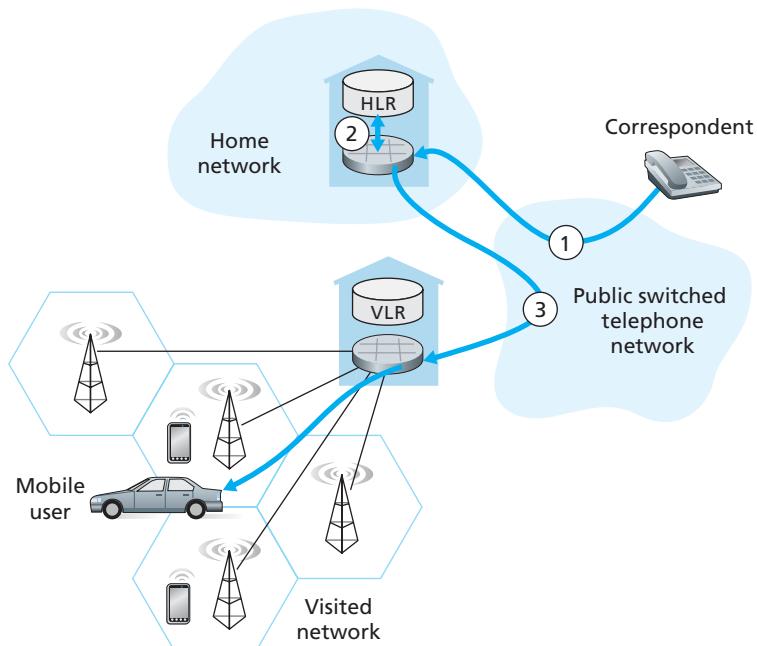


In practice, a provider's cellular network will serve as a home network for its subscribers and as a visited network for mobile users whose subscription is with a different cellular provider.

### 6.7.1 Routing Calls to a Mobile User

We're now in a position to describe how a call is placed to a mobile GSM user in a visited network. We'll consider a simple example below; more complex scenarios are described in [Mouly 1992]. The steps, as illustrated in Figure 6.29, are as follows:

1. The correspondent dials the mobile user's phone number. This number itself does not refer to a particular telephone line or location (after all, the phone number is fixed and the user is mobile!). The leading digits in the number are sufficient to globally identify the mobile's home network. The call is routed from the correspondent through the PSTN to the home MSC in the mobile's home network. This is the first leg of the call.
2. The home MSC receives the call and interrogates the HLR to determine the location of the mobile user. In the simplest case, the HLR returns the **mobile**



**Figure 6.29** ♦ Placing a call to a mobile user: indirect routing