

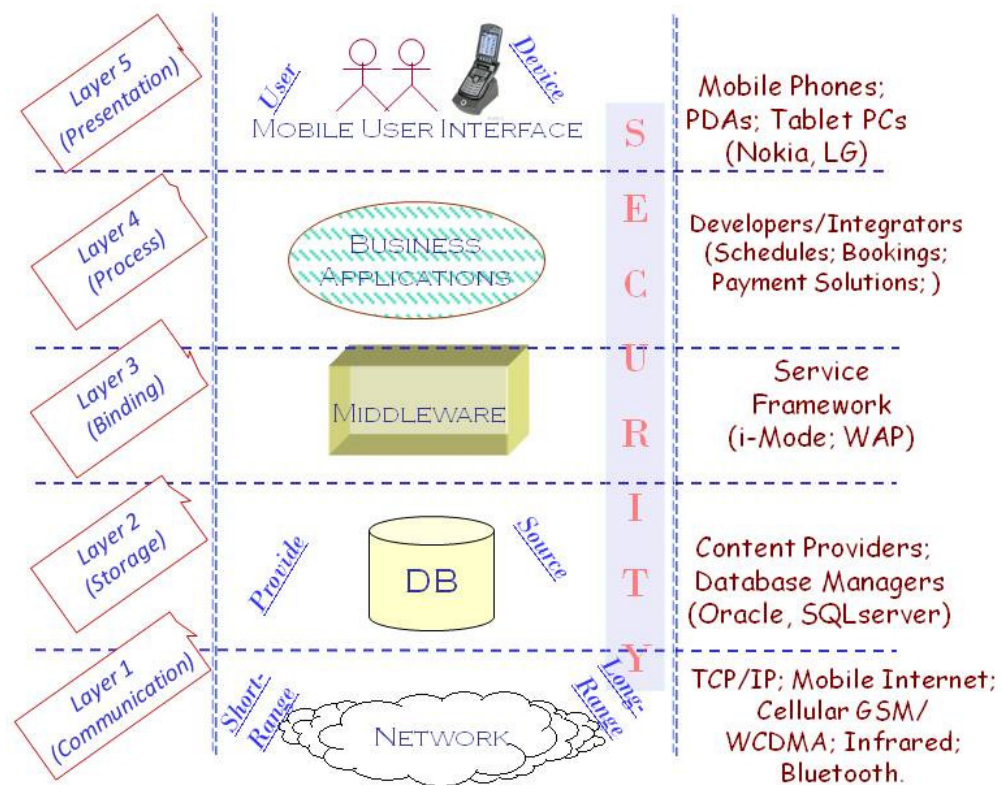
# CHAPTER 8: MANAGING MOBILE BUSINESS - SUPPLEMENTAL MATERIAL

From the book [The Next Wave of Technologies: Opportunities in Chaos](#) by Phil Simon

**BHUVAN UNHELKAR**

## Interoperability Layers

Figure 8.6: Layers and Players in a Mobile Business Architecture



Location-based services are delivered at the specific locations of the users. While these services vary depending on the technologies used by the service providers, all need the support of people playing various roles at different layers of these services. Figure 8.6 shows the various layers in a Mobile Business

Architecture and the corresponding players. As shown in Figure 8.6, the base layer is the transmission network layer, which is where the mobile network operators are providing their part of the services. The next layer is Layer 2, shown in Figure 8.6. This is the layer of the enablers of mobile services. These enablers include application developers, billing solutions providers and integrators. The enablers themselves provide the basis for the use of the media and the contents—a basis accessed by the mobile gadgets for the use by the mobile user.

In other words, a business entity provides the services that makes use of the common network transmission technologies provided by another business entity—that of the mobile network operators. As a result, there is an ongoing need for interoperability between the wireless network platforms and the location-aware content providers. The 3G (Third Generation) network has a direct impact on market growth because it affects software, device, and content development.

## **Integration**

Integration among mobile technologies is absolutely essential, affecting both customer growth and retention. Poorly-integrated mobile applications suffer from the following:

- higher costs
- inconsistent user interfaces
- privacy and security concerns

Failed or incomplete integration among services can prevent new users from learning—and ultimately utilizing—an organization's mobile products and services. Interoperability and integration also encompasses a standardized mobile payment infrastructure.

---

## **Pricing**

Pricing of products and services is a significant strategic component of the transition in undertaking MET. The newly created and offered mobile service (and related products) needs to consider not only the setup and operational costs, but also the price differentials with other business partners and network operators. A successful pricing strategy can facilitate market growth for the mobile business. However, such pricing is *not* based merely on the value of the content. Arguably more important is the on the *perceived* value of the overall benefit derived from any service. The most valuable mobile services are personalized, context-specific, timely, and easy to use. Services are only valuable if customers perceive them as such.

Services can be priced via a standard flat-fee and a per-service or per-usage charge. Non-monetary factors such as loss of privacy or possibly intrusive marketing promotions also need to be balanced in this pricing process. There is an ongoing need to balance flat-fee tiered pricing where a fixed charge is applied for a certain given quota of airtime, versus pricing based on the quantity of data transferred. The customer billing is based on only one aspect, say the data quantity, then an unaware customer may end up with unexpected bills. On the other hand, customers may find subscription-based pricing easier to understand. However, that model may suffer from limitations on the value the network carriers can generate—particularly if the customer uses the service heavily.

In and of themselves, customers do not perceive the availability of a large number of services as inherently valuable. What's more, effective pricing of mobile goods and services necessitates segmenting the market and differentiating the value of the service on the location as perceived by the customer. Failure to do so will not lead to improved financial performance. For example, a roadside emergency service that can guide a driver in distress may be very important for frequent travelers and soccer moms. However, perhaps college going students may construe that same service as limiting their independence. Alternatively, applications developed for niche segments such as for outdoor enthusiasts (e.g. campers, hunters, fishermen) may hold considerable potential in providing services and facilities that are considered valuable by the users.

Service providers have greater flexibility in setting their prices when consumers have independent and unrestricted access to the services without additional charges from the network operators. The effects of cost of advertisements that are packaged together by the service providers with the network operators also need to be considered as these costs have an impact on the overall pricing of services. This issue of pricing is relevant particularly as marketers want to use location-based advertising and promotions to drive traffic to a storefront. These marketers and promoters want to encourage location-specific mobile-shopping behavior that can be dynamically customized to the needs of the location and time.

MET needs to attract customers to stores by providing personalized promotional offers along with services available at reasonable prices.

## **Collaboration Among Parties and Partners**

Consider a business offering half-price ice cream cones in a shopping mall during a summer heatwave. Sales of cones will likely explode because of the timeliness of the sale. However, the revenue generated needs to be shared between ice cream store and the wireless network operator. The latter transmitted the

messages on the mobile phones of potential customers in the mall when the temperatures outside soared.

The involvement of multiple parties in conducting successful mobile transactions requires creativity and innovation in pricing strategies. However, most organizations lack effective alternative pricing strategies. As mentioned earlier, perhaps there is an opportunity to consider separate pricing for mobile *voice* services versus mobile *data* services.

Organizations need to consider the impact of high-speed networks (such as 3G and 4G) in pricing their services. Some of these alternative payment options include the following:

- pay-per-use
- prepaid usage
- service-specific subscription fees
- rates contingent upon the time of day
- rates depending on volume of usage and so on

These payment options need to be further investigated and modeled on the high-speed networks in order to develop collaborative mobile business models. Perhaps organizations will need to differentiate price based on location, time, and context. To be sure, a customer at a specific location may want a service at a particular time and location. As such, she is less concerned about the service's price. Finally, business confident of the value of its offering can even provide customers comparative information on pricing.

In sum, it is better for service providers to align themselves with network operators and bundle their services together with that of the operator. Relative to service providers, network operators have much wider and readily available audiences with higher penetration rates. The end result is that network operators provide a better chance of promoting the services over their networks than the service providers trying to do it alone through some local or proprietary networks.

**Figure 8.7: Various Mobile Components that facilitate the Mobile Services Platform**

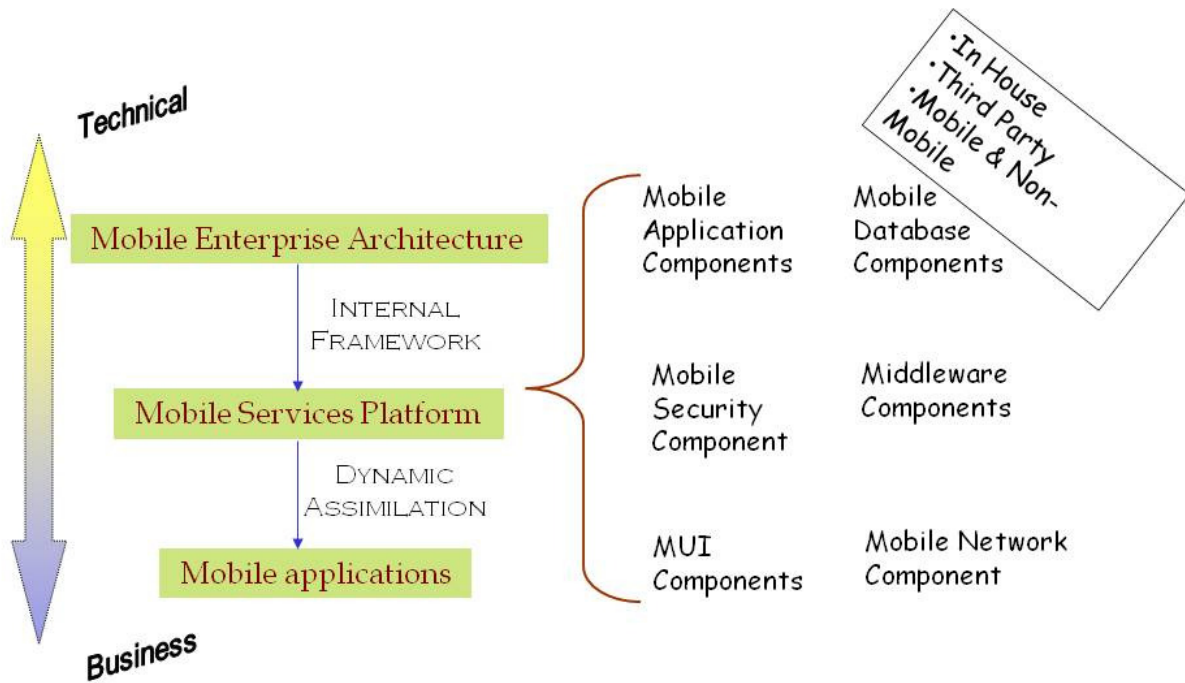


Figure 8.7 shows the various types of components that make up a mobile service platform. This platform has the mobile enterprise architecture in the background. The components are used to put together mobile applications. Figure 8.7 shows component types such as applications, databases, security, user interfaces (MUI), middleware and networks. These components can be built either in-house or purchased as third-party.