

Infrared Data Association
The Guiding Principals behind IrFM v1.0

It is clear from the Executive Summary, and the specification itself, that the central purpose of the IrFM protocol is global standardization of financial transaction formats (between buyers and sellers) that are a part of a proximity payment (up close and personal) event. It may be instructive, however, to have an understanding of the guiding principals behind the standards development. They are:

- Reliance, as much as practically possible, on relevant existing standards. That is, avoidance of creating new protocols in favor of existing, proven, specifications. Accordingly IrFM does, or will, reference payment instrument protocols such as ISO credit card standards, debit card standards, paper check standards and digital receipt specifications. In brief, the objective has been not to invent a new payment instrument.
- Interface with existing payment processing infrastructures rather than building new and competing architectures. IrFM is not meant to replace current financial clearance and settlement systems. It is a front-end to the existing architecture and, in fact, simply a wireless, electronic version of existing payment methods.
- Leverage IrDA Communications protocols. Infrared beaming was initially chosen for a number of reasons including its ubiquitous presence in the target class of client devices such as mobile phones and handheld computers/PDAs. However, by virtue of utilization of the Object Exchange (OBEX) protocol, also developed by IrDA, the IrFM specification provides a compatibility path for other communications media such as Bluetooth™, 802.11, 3G and RFID. In other words, IrFM is agnostic relative to the wireless transport layer upon which a proximity payment travels.
- Consumer (and merchant) advocacy. IrFM is meant to recognize the need for ease of use by the buyer and seller in the payment portion of a transaction. Simplicity and intuitive design are the foundational springboards for development and refinements to the IrFM specification. The long-term objective is to have created an architecture that can become the lowest cost, most convenient, most flexible and safest alternative payment method in both the consumer and business context.
- Fast! A primary requirement of proximity payment is that it be extremely fast, convenient, and require an explicit action by the consumer. This is especially true in interactions with highway toll gates, subway turnstiles and vending machines. As a result, IrFM created what is now called Fast Connect; a new IrLAP-level quick connection model supported by IrDA.
- Involve the full spectrum of stakeholders in development of the proximity payment process. This list was considered to include consumers, merchants, banks, credit card associations and companies, point-of-sale hardware manufacturers, adapter manufacturers, payment processors, handheld computer and mobile phone manufactures, electronic fund transfer network service providers and mobile communications network service providers. The objective was to encourage openness and compatibility.
- Use case-based development. Mimicking real world consumer payment behavior has been used as a basis for creating the protocol's architecture. This development tool was employed to assure conformance with relevant payment scenarios as well as to provide flexibility for future developments in global payments.