OBject EXchange

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OBEX (abbreviation of **OBject EXchange**, also termed **IrOBEX**) is a communications protocol that facilitates the exchange of binary objects between devices. It is maintained by the Infrared Data Association but has also been adopted by the Bluetooth Special Interest Group and the SyncML wing of the Open Mobile Alliance (OMA). One of OBEX's earliest popular applications was in the Palm III personal digital assistant. This PDA and its many successors use OBEX to exchange business cards, data, even applications.

Although OBEX was initially designed for infrared, it has now been adopted by Bluetooth, and is also used over RS-232, USB, WAP, and in devices such as Livescribe smartpens.

Contents

Comparison to HTTP

OBEX is similar in design and function to HTTP in providing the client with a reliable transport for connecting to a server and may then request or provide objects. But OBEX differs in many important respects:

- HTTP is normally layered above a TCP/IP link. OBEX is commonly implemented on an IrLAP/IrLMP/Tiny TP stack on an IrDA device. In Bluetooth, OBEX is implemented on a Baseband/ACL/L2CAP/RFCOMM stack. Other such "bindings" of OBEX are possible.
- HTTP uses human-readable text, but OBEX uses binary-formatted type-length-value triplets named "Headers" to exchange information about a request or an object. These are much easier to parse by resource-limited devices.
- HTTP transactions are inherently stateless; generally a HTTP client opens a connection, makes a single request, receives its response, and either closes the connection or makes other unrelated requests. In OBEX, a single transport connection may bear many related operations. In fact, recent additions to the OBEX specification allow an abruptly closed transaction to be resumed with all state information intact.

Profiles

OBEX is the foundation for many higher-layer "profiles":

Profiles

Classification	Profile
IrDA	Point and Shoot profile
	Infrared Financial Messaging (IrFM) profile
Bluetooth SIG	Generic Object Exchange Profile
	Object Push Profile (phone to phone transfers)
	File Transfer Profile (phone to PC transfers)
	Synchronization Profile
	Basic Imaging Profile
	Basic Printing Profile
OMA	SyncML binding

Supported devices

- All Palms since Palm III, except the Palm Pre, Palm Pre Plus, Palm Pixi and Palm Pixi Plus.
- Most Sharp, Motorola, Samsung, Sony Ericsson, HTC and Nokia phones with infrared or Bluetooth port
- LG EnV Touch (VX11000)
- Many other PDAs since 2003
- Many other phones with infrared or Bluetooth port
- Android devices in version 2.1 and above
- Windows Phone 7.8 and 8 devices (limited to the transferring of pictures, music and videos via a 'Bluetooth Share' app).

See also

- Shared file access

External links

- OBEX specification at IrDA.org (http://www.irda.org/)
- OpenOBEX (http://www.openobex.org/) an open source implementation of the OBEX protocol