

Bluetooth Profiles

The profile found in Bluetooth will describe how the technology is used. Profiles can be best described as vertical slices through the protocol stack. It will define options in each protocol that are mandatory for the profile.

The profile will also define the parameter ranges for each protocol. The concept of the profile is used to decrease the risk of interoperability problems between the different products. These profiles won't normally define any additions to the Bluetooth specification, which is why you can add new profiles where you need them. The Bluetooth underlying technology is the same, only the specific method that it's used is defined.

Generally speaking, all profiles of Bluetooth are based on the GAP (Generic Access Profile). There are 9 profiles that fall in the GAP category, and they are below:

1. AVRCP - Audio/Video Remote Control Profile
2. ESDP - Extended Service Discovery Profile
3. CIP - Common ISDN Access Profile
4. PAN - Public Area Network Profile
5. HCRP - Hardcopy Cable Replacement Profile
6. GAVDP - Generic Audio/Visual Distribution Profile
7. A2DP - Advanced Audio Distribution Profile
8. VDP - Video Distribution Profile
9. HID - Human Interface Device Profile

To put it another way, usage models will describe Bluetooth device applications and the associated profiles that are used. The usage model focuses mainly on three categories - voice/data access points, peripheral interconnects, and PAN (Personal Area Networking).

The voice and data access points involve connecting

computing devices to communicating devices through a wireless link. This way, data can be transferred in a wireless manor, without the need of cables or other types of connectivity.

PAN is another very important usage model with strong appeal to business customers. Bluetooth networks are easy to set up in virtually any type of environment. An example would be meeting others at a trade show.

Instead of having contact information beamed via infrared, business cards can quickly and easily be transferred via Bluetooth wireless. The fact is that many documents can be exchanged this very same way - making the uses and possibilities virtually endless.

The Bluetooth profile is very important to the specification, as it enables you to do so much more. You can use peripherals and devices with the profiles, and virtually anything else that you decide.

As Bluetooth expands and gets bigger and better, you can count on the profiles to expand and get even more functions. If you have experience with Bluetooth profiles, you should know exactly what they are and what you can do with them. If not, all you need is a Bluetooth device - and a vivid imagination.

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