

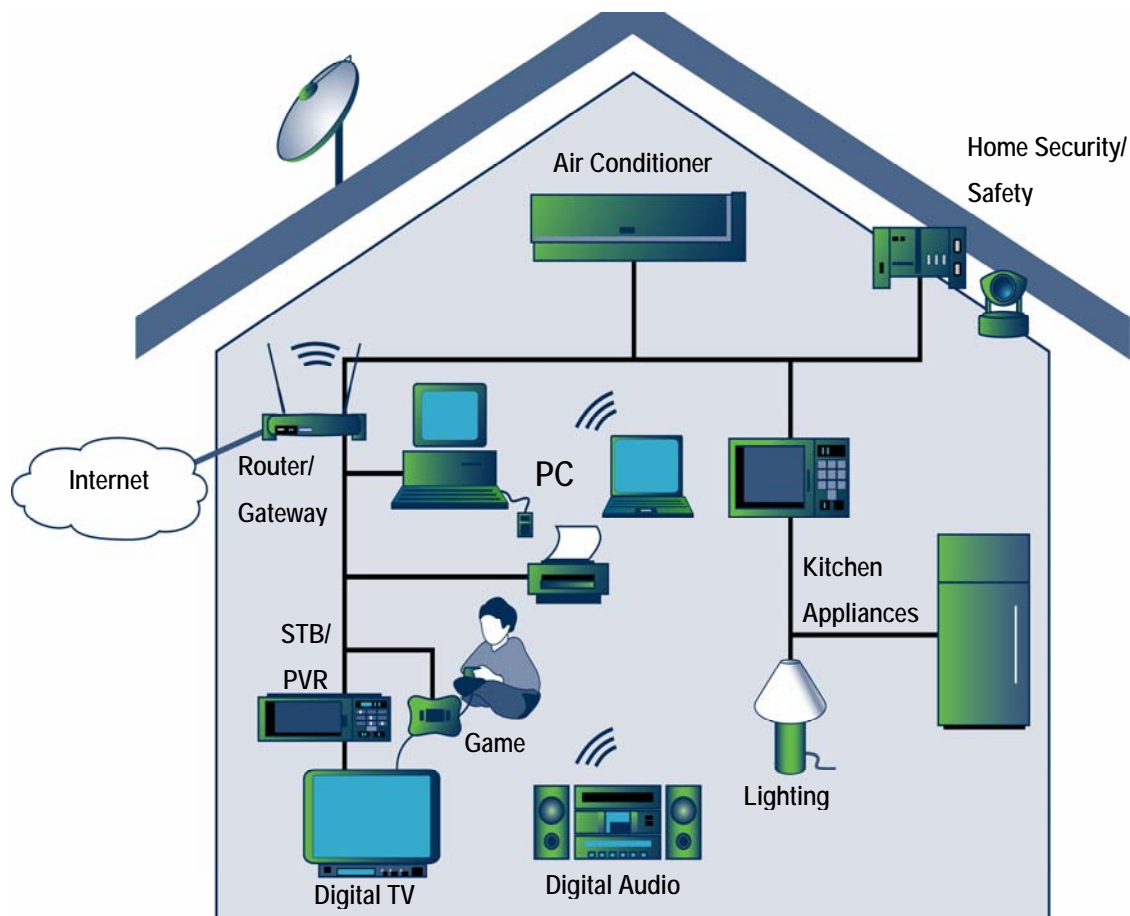


UPnP™ Technology: The Foundation for the Connected Home

UPnP technology makes seamless home networking simple. UPnP enabled devices create unprecedented interoperability to improve home networking and reduce challenges associated with average network installation. Now the average home user can use UPnP technology to literally store and stream media, integrate televisions as the 'hub' from which to access data and entertainment, use mobile phones to access or transport data, and more.

UPnP technology provides the broadest architectural framework for self-configuring, self-describing devices. Millions of devices that support UPnP technology have shipped.

In basic terms, UPnP technology makes connecting devices together a straightforward process. Users now have UPnP technology available to quickly and effectively share pictures, music, and videos over a home network. UPnP technology is shipped in routers, cable and DSL modems, and audio and video products. UPnP technology is emerging as a technology of choice for controlling home security, lighting, heating/cooling, printers and scanners. UPnP Device Control Protocols (DCPs) have now been released for a wide variety of device classes including Internet Gateway Device, Media Server, Media Renderer, Printer Device, Scanner, HVAC, WLAN Access Point, Device Security, Lighting Controls, and Remote UI Client and Server.



The UPnP enabled network provides the following capabilities:

- **Media and device independence:** UPnP technology can run on any medium that supports IP networking, including phone line, power line, Ethernet, RF, wireless and 1394.
- **Platform independence:** Vendors use any operating system and any programming language to build UPnP products.
- **Internet-based technologies:** UPnP technology is built upon IP, TCP, UDP, HTTP and XML, among others.
- **UI control:** UPnP architecture enables vendor control over device user interface and user interaction using a Web browser.
- **Programmatic control:** UPnP architecture also enables conventional application programmatic control.
- **Common base protocols:** Vendors agree on base protocol sets on a per-device basis.
- **Extendable:** Each UPnP product can have value-added services layered on top of the basic device architecture by the individual manufacturers.

The UPnP standards have been adopted by key industry groups including CableLabs, Consumer Electronics Association (CEA), DSLHome, and Digital Living Network Alliance (DLNA).

Implementation of UPnP technology can be found in products running in many diverse environments including Microsoft Windows, Linux, Java, and MacOS.

The supporting organization for UPnP technology, the UPnP Forum has continued to grow impressively. The UPnP Forum now lists over 800 members. The market footprint of UPnP technology is expanding in 2007 with focus on North American, European and Asian markets.

UPnP provides the foundation for the connected home through:

- UPnP enabled products that make home networking simpler
- More than 275 different media and AV products that have already been UPnP certified
- Millions of routers and gateways that have shipped with UPnP technology included
- Application of UPnP technology that supports an increase in home automation through ease of use

About the UPnP™ Forum

The UPnP Forum includes companies and individuals across multiple industries that play a leading role in the development of specifications for UPnP compliant devices and services. Formed in June 1999, the Forum is a non-profit association of leading companies from a variety of industries including consumer electronics, computing, home automation, home security, appliances, printing, photography, computer networking, mobile products, and other technology-driven industries.

For more information about the UPnP Forum, visit: <http://www.upnp.org>. Send questions of an administrative nature to UPnPAdmin@forum.upnp.org with the text "*UPnP Administration Request*" in the subject line of your message.