Internet of things (IoT)

Internet of things is the connection of physical device, vehicles, buildings and other items connected within the electronics, software, sensors and network connectivity which enable these objects to collect and exchange data. Basically it connects machine, people and data.

Google home speaker with Google assistant



1. Physical Components

- i. Array of Light Emitting Diodes(LED)
- ii. Microelectromechanical systems(MEMS) microphones(InvenSense INMP621)
- iii. 512MB DDR3 SDRAM memory



2. Smart Components

- i. Microcontroller(Atmel's 32-bit ARM Cortex-M0+)
- ii. ProxSense Trackpad
- iii. Peerless PLS-50N25AL07-04 driver





3. Connectivity

- i. Marvell's Avastar 802.11ac mobile multiple input, multiple output(MIMO)
- ii. Radio chip for both near-field communication(NFC), Bluetooth and Wi-Fi



4. Capabilities

- i. Chromecast Audio The audio dongle that allows for streaming of music from your home library or through services such as Pandora, Google Play Music, Spotify, YouTube Music or Tuneln.
- ii. Chromecast The dongle that allows streaming Netflix, HBO Now, YouTube, music services and other services to televisions.
- iii. Nest Learning Thermostats The programmable thermostats that can be customized to meet your temperature options in the home as well as learn how you want the temperature to be over time.
- iv. SmartThings Hub This hub controls Z-Wave or ZigBee gadgets by connecting to Wi-Fi and it eliminates the need to have an application for every home device, something made even simpler by connecting to Google Home.
- v. Philips Hue These smart LEDs allow for dimming schemes and environments to be programmed into the Google Home. Other bulbs change color in response to security issues happening inside the home and work with a built-in security system.





