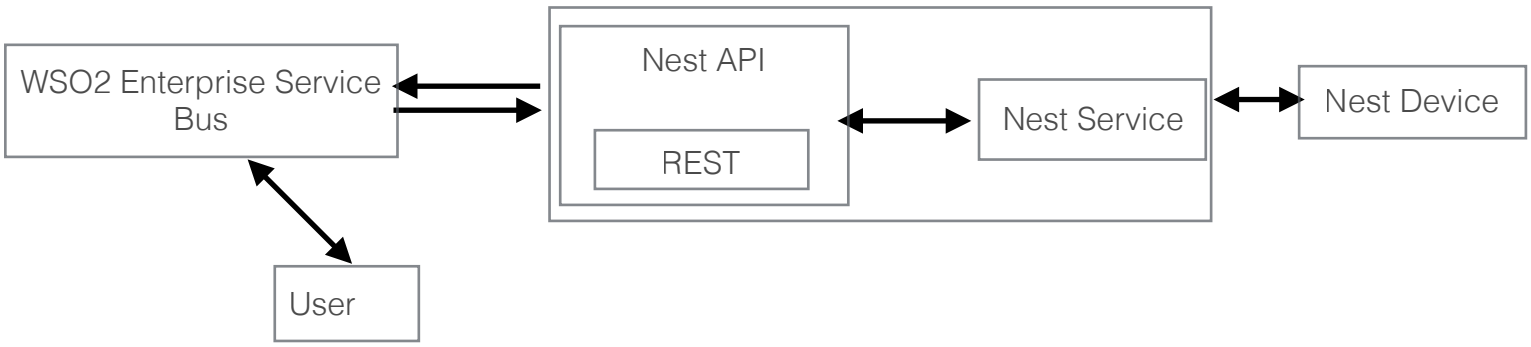
Introduction:

Nest products: Nest API is a real-time data API, offering subscription-based access to data shared by Nest devices. It is connecting people and devices in their homes and anticipate people's needs and make their lives easier. All Nest devices (Thermostats and Smoke + CO Alarms) and applications (iOS, Android and web apps) connect to the Nest service to access data model of the home. Here everything is organised in a single JSON data object. The clients will use **Firebase** client library or **REST** or **REST Streaming** to subscribe data values via the Nest API.

Nest products:

- Smoke alarm (dropcam) : Dropcam will automatically save a clip if your Nest Protect detects smoke or carbon monoxide
- Fire safety device (LIFX) : If Nest Protect detects smoke or CO, LIFX bulbs can flash red to let you know
- Thermostat in car : car can tell Nest when you'll be home so your thermostat can start heating or cooling at exactly the right time
- UP24 band (JAWBONE) : UP24 band can tell the thermostat to heat up or cool down your home when you wake up
- Room temperature controller (wallyHOME) : It can helps the Nest Thermostat to know which room to heat or cool
- etc



Operations:

Nest Learning Thermostat

- View current temperature
- View or set target temperature
- Set fan timer
- View or set temperature mode
- View humidity
- View online status and last connection information

Nest Protect Smoke + CO Alarm

- View CO or smoke status
- View battery health state
- View last manual test status and timestamp for last manual test
- View online status and last connection information

Home

- View a list of devices in the home
- View energy event status
- View or set Away state
- View postal or zip code
- Set ETA

These operations are needed to monitor and operate the nest devices. Client applications can get data via ESB connector.

- With humidity and current temperature, thermostat can start heating or cooling at exactly the right time.
- When a person leaves home he can set a target temperature. When it is exceeded, thermostat will be started to cool.
- Current situation of the home can be monitored.
- List of devices, active devices, battery health state can be retrieved.
- Clients listen for changes in real time.
- Carbon monoxide(CO) or smoke status will be monitored.