**Footprint program explanation**

We don’t want employees to download any software or tools to track his/her location. So we used Powershell in windows and bash in linux.

Our program will track Wi-Fi *access point’s mac address* when he/she gets connected to wifi network( Access point gives more specific location) and when connected to Ethernet we track router’s mac address.

We send mac address of laptop and access point’s (router) mac address to server.

**1.Windows**

* Agile.exe

Extracts file to startup folder and calls file present in documents to makes it to run on every start time of laptop.

* Win.exe

Extracts file to documents agile calls this file.

This file contain main logic to get mac address.

**2.Linux (Bash Shell)**

* Runthis.sh

Helps to run program at startup and give permissions to linux.sh.

* Linux.sh

Contains main logic to extract mac address.

**Android**

This is extra that we have done, to track the position of employee if employee is using Android Mobile (only for Wi-Fi network).

The Employee just needs to install the .apk file. We are running a Background Service to check whether the Employee is connected to Honeywell Network. Basically we are checking the SSID to which the device is connected. If device is connected to Honeywell Wi-Fi Network then we extract the MAC Address of the device and BSSID and store it in database.

We are maintaining a central Database in “Hostinger”**1** Service provider.

This app works on all versions of Android from KitKat to Marshmallow.

**Server**

Our backend API’s are written in PHP. We have used Relational Database to store the Employee and Router Details.

**Database Table’s:**

1. **Employee Mac:**

|  |  |  |
| --- | --- | --- |
| Employee ID | Employee name | Mac Address |

1. **Employee Position:**

|  |  |  |  |
| --- | --- | --- | --- |
| Employee ID | Employee Name | Employee Position | Last Updated |

1. **Router Position:**

|  |  |  |
| --- | --- | --- |
| Router Number | Router Mac Address | Router Position |

**PHP Files:**

1. Init.php - This file is used for Database Connection.
2. fill.php - This API will take JSON request (Device Mac and Access Points Mac) and updates the employee position in *Employee Position* table.
3. Corn.php - This script is executed every 1 hour (using Cron Job) to change the employee position if employee position was not updated for last 1 hour.

**1)** Hostinger.in is a free Hosting Service Provider.