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BLUETOOTH GROUPS IDENTIFIER BY ANALYZING BT DEVICES DENSITY

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Bluetooth Groups Identifier by Analyzing BT Devices Density

This innovation method is to help users clarify different work environments and surrounding BT devices density. The system is designed to record devices connecting statuses including WiFi routers, display monitors and surrounding BT devices distance. The raw data will be sorted in the devices connecting footprint and then group every BT device into each category.

The BT devices density, distance, movement, stay duration and enumeration frequency would be the key factors in the hash network connection. System can utilize Bluetooth devices density to figure out the current workplace location. The arbitration mechanism defines a scan policy of per proximity and per walkaway at personal BT devices, so that the runtime OS can adjust a better power management scheme and security policy.

New Approach:

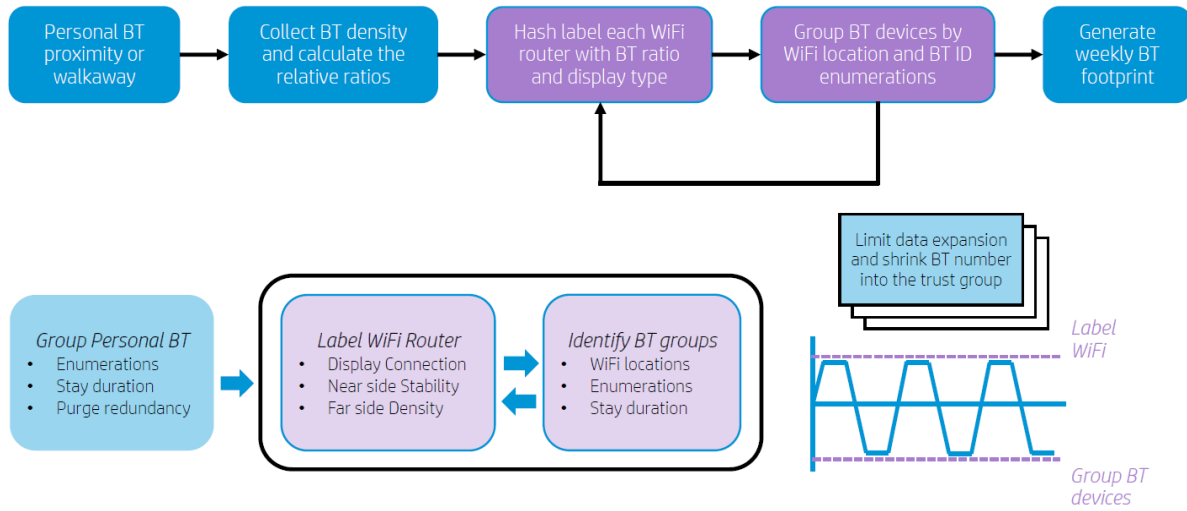
The purpose is to clarify different work environments and Bluetooth devices density by closed loop hash network. It can define a scan policy for runtime OS adjusting a better power scheme and security policy. This new algorithm utilizes Bluetooth devices density and display connection to calculate current WiFi workplace. The user application can interact and auto label the surrounding BT groups based on the WiFi router locations and BT footprints.

- Provide a better power scheme by conditional scan the BT density and network status.
- Provide a security policy according to the different workplaces and proximity device.
- Share the entertainment and advertisement cookies with the specific BT group.
- Broadcast the targeted device location by using BT groups footprint and timestamp.

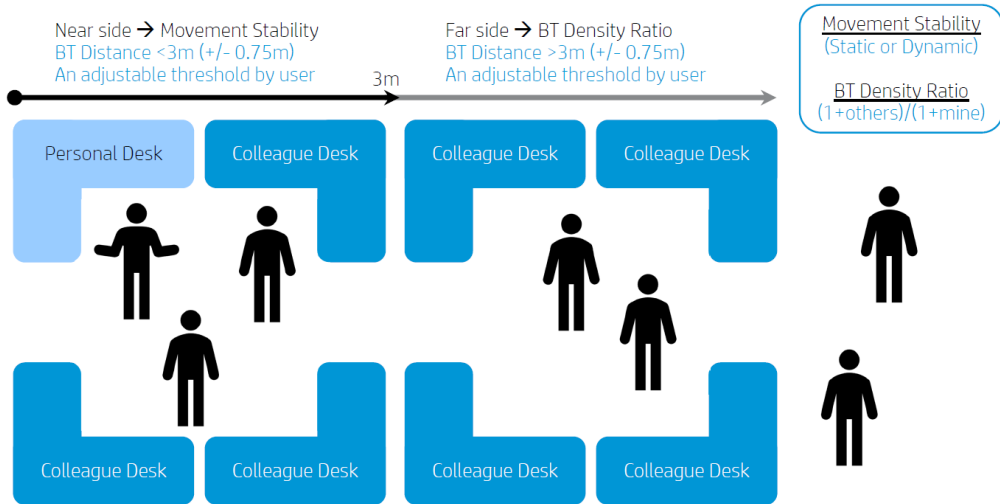
Bluetooth Devices Analysis Loopback

Input Parameters of Classify WiFi Router

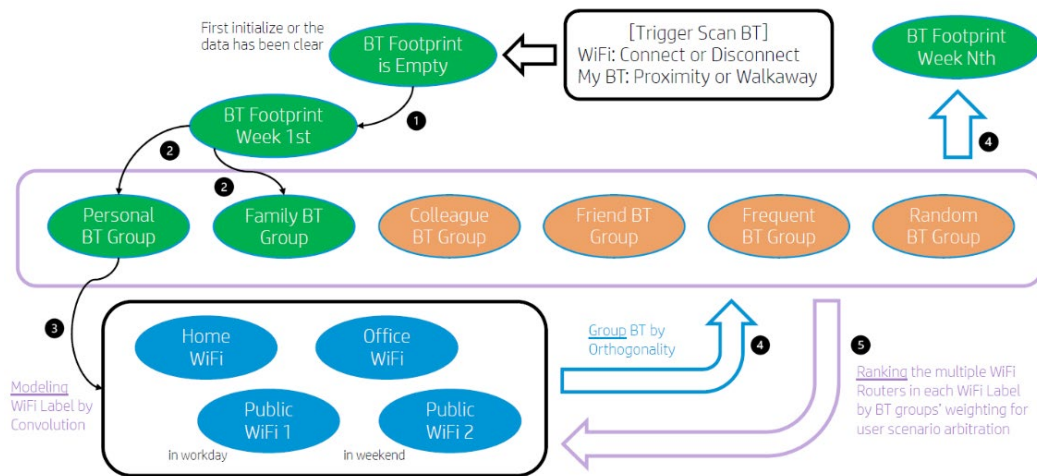
Algorithm = f (enumerations, stay duration, display connection, near side stability, far side density)



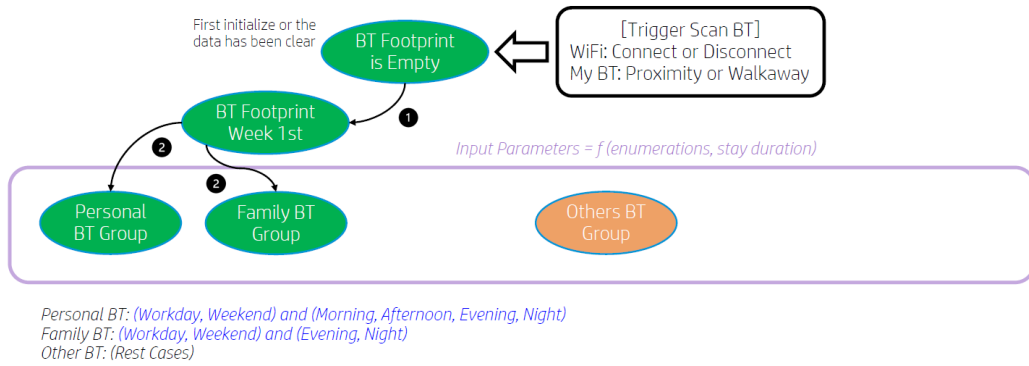
Bluetooth Interactive Network



Bluetooth Groups Identifier Model – State Machine

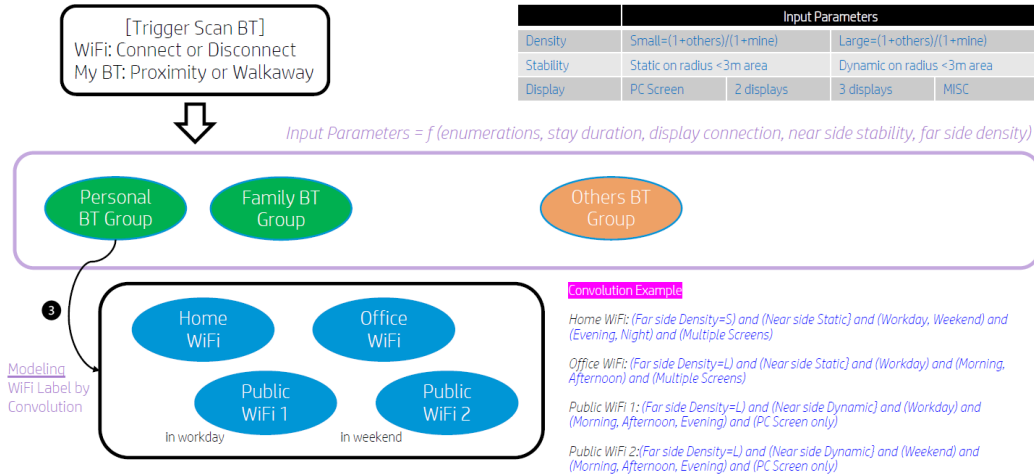


Bluetooth Groups Identifier Model Training – First Week

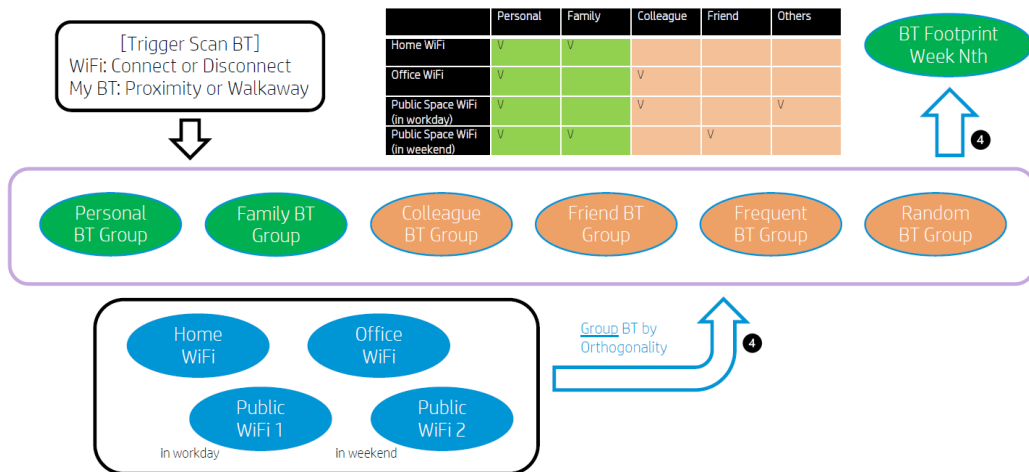


	Input Parameters			
Enumeration	Workday	Weekend	Weekly	N < 3
Period	Morning	Afternoon	Evening	Night

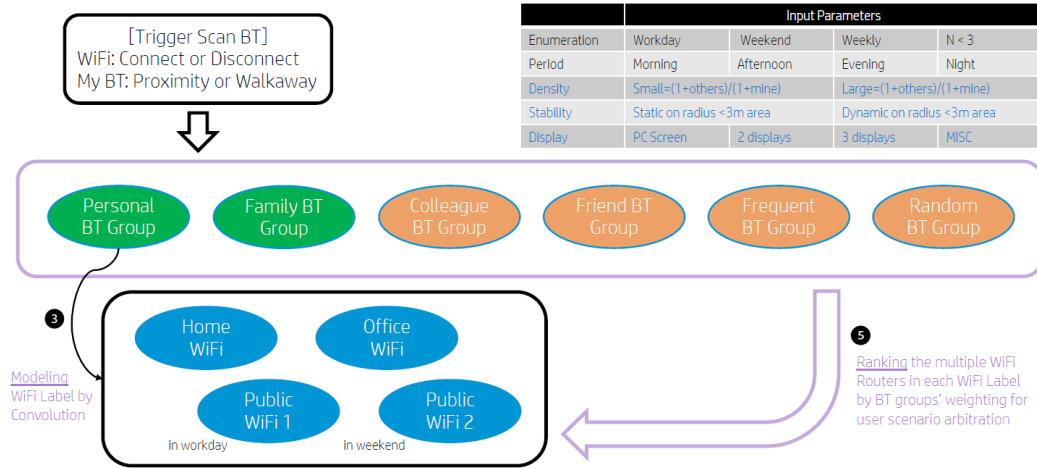
Bluetooth Groups Identifier Model Training – Second Week



Bluetooth Groups Identifier Model Training – Odd Weeks (3, 5, 7, ...)



Bluetooth Groups Identifier Model Training – Even Weeks (4, 6, 8, ...)



Disclosed by Wendell Lo, Angel Hsu, Longman Chen and Lee Atkinson, HP Inc.