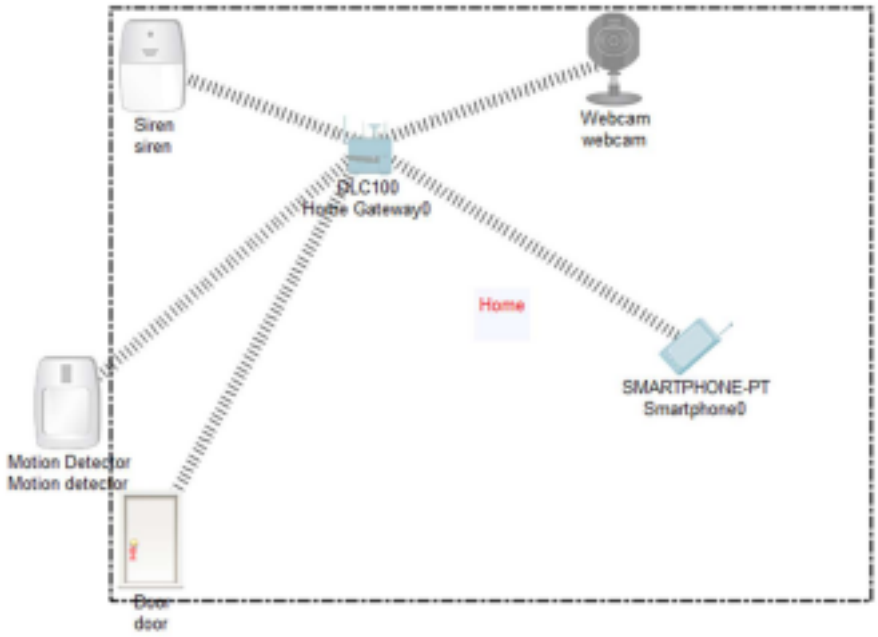
Architecture/Design



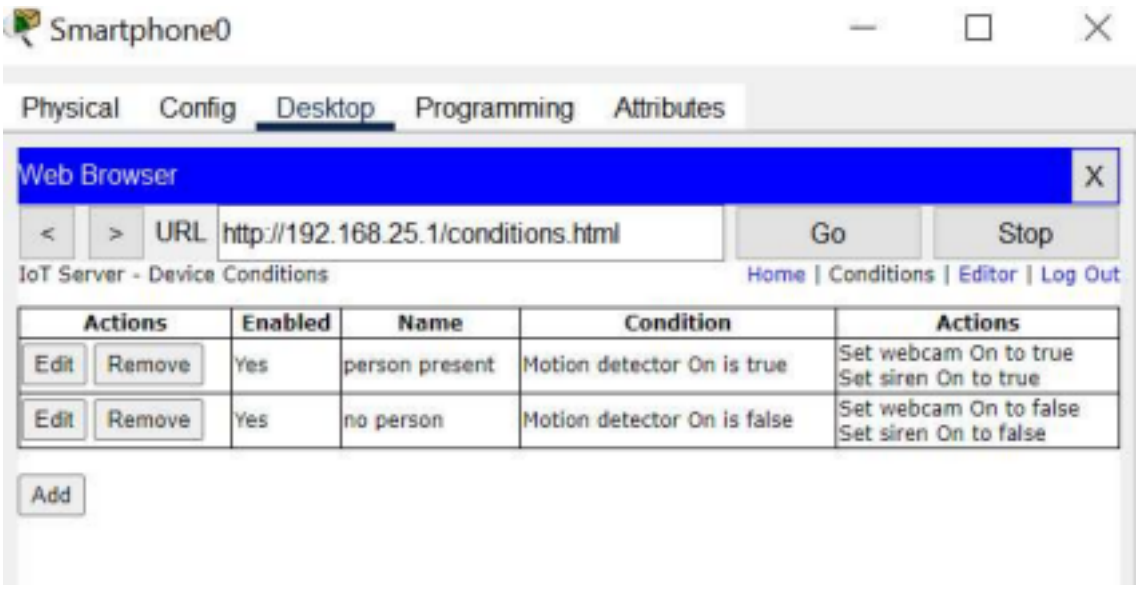
Implementation

- Home Gateway have 4 Ethernet ports in addition to a wireless access point configured with the "Home Gateway" SSID (see fig 2). To secure wireless connection WEP / WPA-PSK / WPA2 enterprise can be configured on home gateway.
- The Home Gateway internal (LAN) IP address is 192.168.25.1 but it can also be accessed through its Internet facing IP address
- Home gateway also works as DHCP server

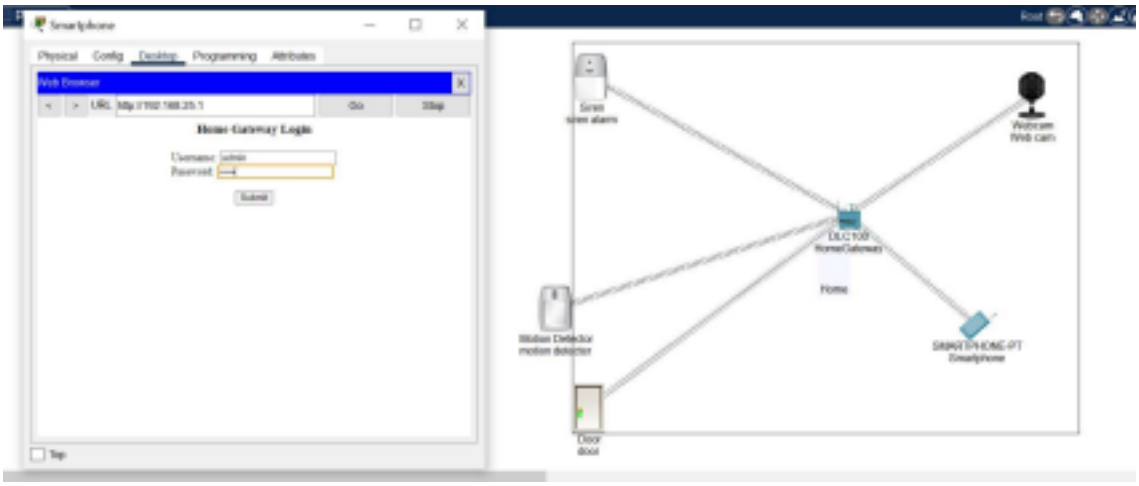
by assigning IP address to each smart device that connected to it.

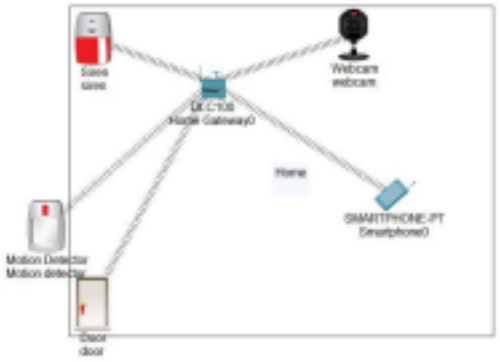
Security Actions

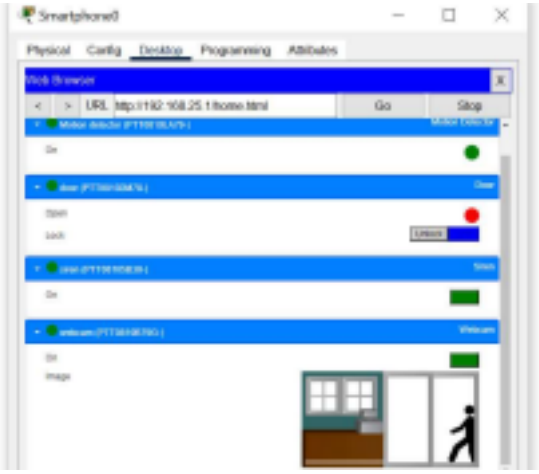
- When a person appears in front of the door. Motion detector is switched on and then webcam and siren are set to action
- When no person appears in front of the door the motion detector is not switched on also the webcam and siren are put switched off

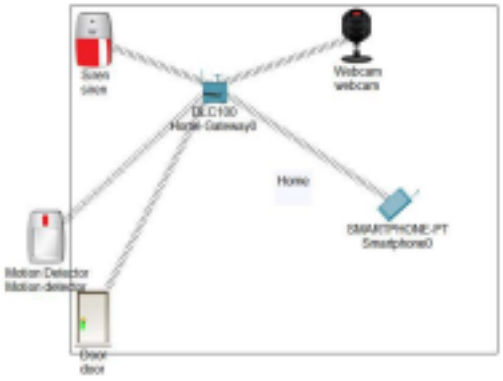


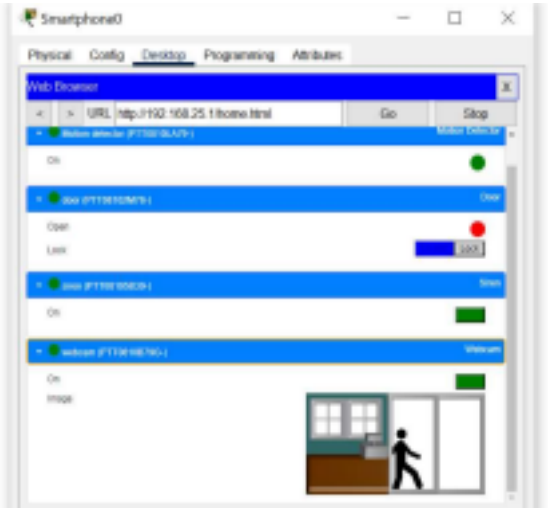
Demonstration







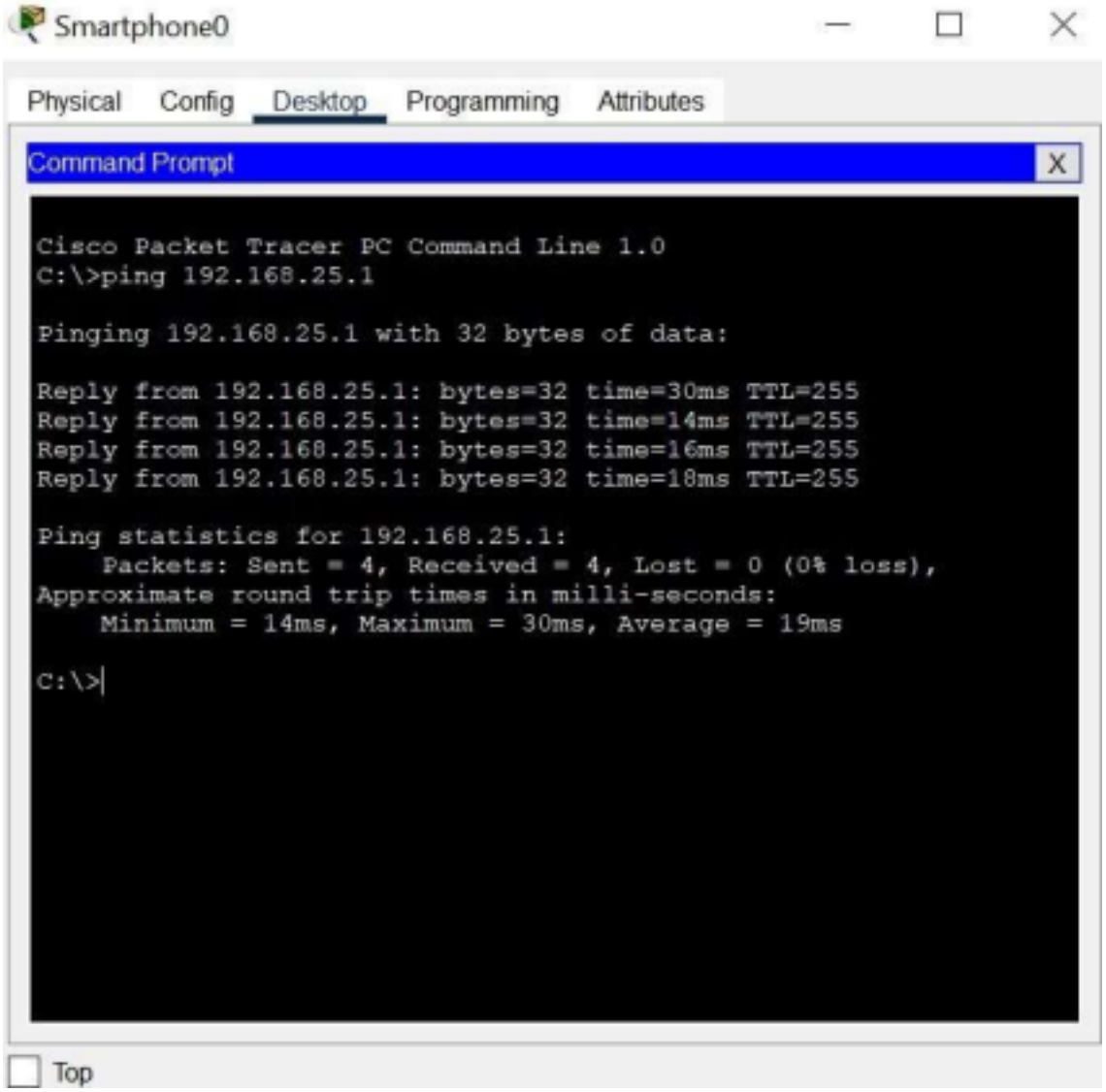




Results and Discussion:

Connection Check:

The network connections were checked by ping requests:



HTTPS Check:

The server access was checked with HTTPS by using a browser: