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| **Course Code: CT2364** | **Course Name: Lab: Internet of Things** |

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**Practical No - 9**

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| **Aim:** Design a IoT WAN scenario using cisco packet tracer software |
| **Requirement:**   * **1 x Home Gateway** * **1 x Registration Server** * **1 x Switch** * **1 x Smart Phone** * **1 x Door** * **1 x Ceiling Fan** |
| **Description:**  Smart home is a living home that include smart object to improve home activities in advance, that can be automating activities of home without users involvement such monitoring home environment condition by various sensor (Temperature, Humidity, smoke, wind, sound) then ventilate the environment based on sensor information. Smart home can provide different function rather than providing safety that is security by providing more automate security using different alarm system such as siren sound, LCD display and sending email to legitimate user if security issue is detected by sensor.  **Cisco Packet Tracer**  Packet Tracer is a cross-platform visual simulation tool designed by Cisco Systems that allows users to create network topologies and imitate modern computer networks. The software allows users to simulate the configuration of Cisco routers and switches using a simulated command line interface.  Cisco Packet Tracer provides multiple opportunities for instructors to demonstrate networking concepts. Although Packet Tracer is not a substitute for real equipment, it allows students to practice using a command-line interface. This “e-doing” capability is a fundamental component of learning how to configure routers and switches  **Benefits of Cisco Packet Tracer are:**   * Offers a realistic simulation and visualization of IOT device. * Permits users to design, build, configure smart home, smart city by providing different smart object used for them. * Provide board to control smart object. * Allows students to explore concepts IOE. * Provide detector for sensor. |
| **Screenshots :**  **1.JPG**  Fig : IOT WAN connected network using Cisco Packet Tracer  **5.JPG**  Fig : IP Configuration for the Registration Server  **6.JPG**  Fig : Registration Server Login Page  **7.JPG**  Fig : IP Configuration for Home Gateway  **3.JPG**  Fig : Remote Access using Smartphone. |
| **Conclusion:** Hence we have successfully designed a IOT WAN scenario using Cisco packet tracer software. |