Overview

SimpleIoTSimulator is an easy to use, IoT device simulator that quickly creates test environments made up of thousands of sensors and gateways, all on just one computer.

SimpleIoTSimulator supports many of the common IoT protocols like CoAP, MQTT, MQTT-SN, and HTTP/s and enables cloud and gateway application vendors to improve product quality and significantly shorten their time-to-market without incurring large capital expense for creating test infrastructure. The simulator can "learn" from existing devices to duplicate customer environments, or use the learnt data as a template to create thousands of sensors and gateways. It can even create scripted error scenarios on demand. Both IPv4 and IPv6 sensors are supported and the simulator includes built-in support for lossy behavior in constrained environments. Sensors can also be setup to send IP packets over Bluetooth connections and support for additional IoT protocols is planned.

Applications

Development and QA groups can do scalability and functional testing without large infrastructure. Sales groups can create realistic demos that highlight the management application features to shorten sales cycles while Training departments can create portable teaching environments with quick setup. Professional services can create targeted services using duplicated customer environments while Tech Support departments can more easily reproduce customer problems in their test labs. SimpleIoTSimulator can also be used to model sensor/gateway data for creation of different physical environments.

Operation

Only a few simple steps are required to start using the SimpleIoTSimulator. They are:

- Use the built-in learner utilities to record packet exchanges from real sensors and gateways.
- Use this learnt data as a template to create test environment with thousands of IoT sensors.
- Run scripts to create error scenarios, generate notifications and dynamically change properties.

Support for changing data is built-in without requiring any user programming as is lossy behavior and delay. To support additional management protocols like SNMP, Telnet/SSH an IoT management module is available within the popular SimpleAgentPro and SimpleAgentEnterprise.

System Requirements

- RedHat Enterprise Linux