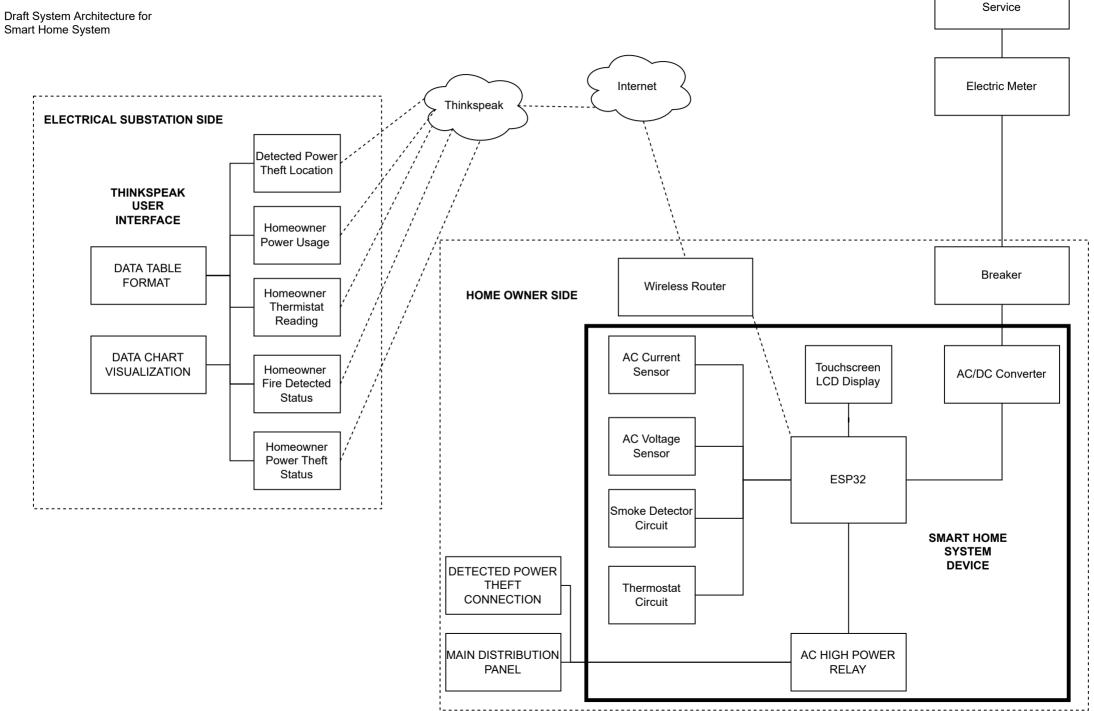# System Architecture

Draft System Architecture for
Smart Home System

ELECTRICAL SUBSTATION SIDE

THINKSPEAK USER INTERFACE

- DATA TABLE FORMAT
- DATA CHART VISUALIZATION

- Detected Power Theft Location
- Homeowner Power Usage
- Homeowner Thermistat Reading
- Homeowner Fire Detected Status
- Homeowner Power Theft Status

Thinkspeak

Internet

Electrical Service

Electric Meter

Breaker

AC/DC Converter

HOME OWNER SIDE

Wireless Router

SMART HOME SYSTEM DEVICE

- AC Current Sensor
- AC Voltage Sensor
- Smoke Detector Circuit
- Thermostat Circuit

Touchscreen LCD Display

ESP32

DETECTED POWER THEFT CONNECTION

MAIN DISTRIBUTION PANEL

AC HIGH POWER RELAY