Smart Agriculture solution for a strawberry greenhouse farm in Japan

Strawberryfarmyieldsareextremelysensitivetoenvironmentalconditionssuchastemperature,solarradiation,humidity,airqualityetc.Evenminorchangesintheseparameterscouldseverelyimpactthequalityandyieldofthefarm.However,controllingtheseparametersinthegreenhousemanuallyisalaborintensiveprocess,oftenpronetoerrorsresultinginhugelaborcostsandunpredictableoutputquality.Toaddressthischallenge,customerwantedtodevelopasmartagriculturesolutionthatwouldcaptureandmonitortheseparametersinrealtimeandprovideactionableinsightsbacktolaborandadministrators.
Imminent

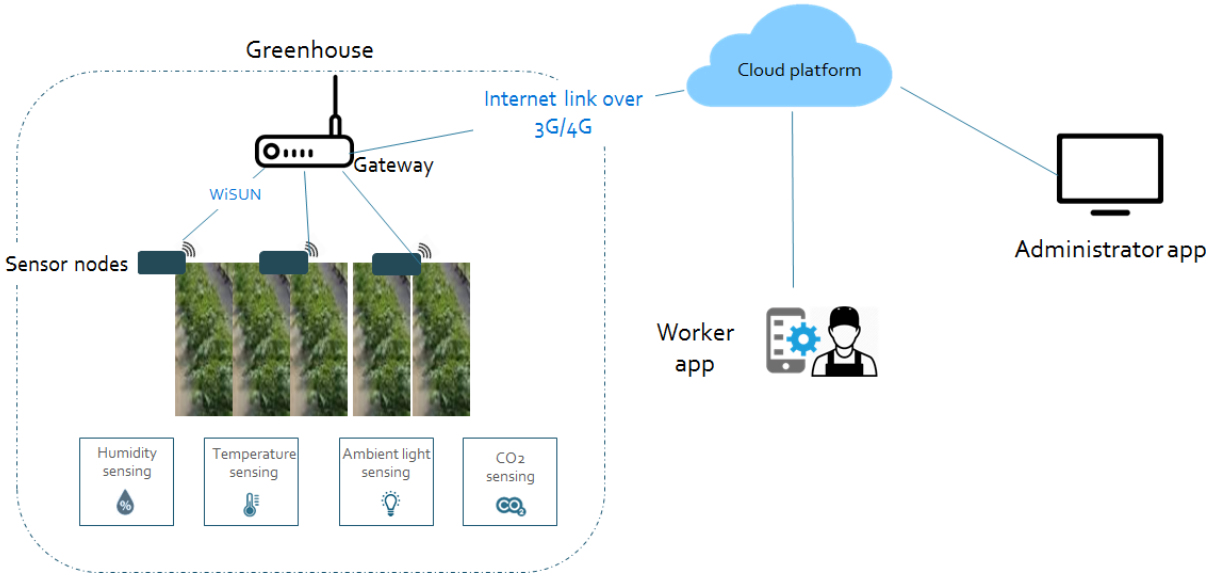
Imminent labs selected as software technology provider for the solution. Imminent worked with semiconductor chipset provider (for sensor devices, and gateways), cloud platform vendor and other ecosystem players as part of this project to deliver complete solution
THESMART

THESMARTAGRICULTURESOLUTION
Thesolutionwasdevelopedkeepinginmindkeyconstraintsoftherequirementintermsofpowersupplyatonelocationonly,connectivityavailability,environmentalchallengesetc.Keycomponentsofthesolutionincluded:
•Sensordevices:withtemperature,humidity,CO_2andambientlightsensorscommunicatingoverWi-SUNcommunicationprotocol

•Gatewaydevice:withaninternetlinkovercellularnetworkonthenorthsideandWi-SUNcommunicationonthesouthside

•Cloudplatform:toaggregatedatafrommultipledevices

•Applications:forworkersandadminstoprovideactionableinsights



WHY WISUN?

WiSUN, based on IEEE 802.15.4g standard, was selected as the wireless connectivity option for its fully bidirectional communication capabilities with optimum range and lower power consumption for this application

WHATALTIUXDID?

Imminent providedthesoftwaretechnologyforthesolutionincluding:

•Sensordevicesoftwarethatenableseasysensorintegrationandoptimizedpowerconsumption

•GatewaysoftwareusingAltiux'sBoxPwrframeworktoenabledataaggregationandcommunicationtocloud

•Othersoftwareleadingtoactionableinsightstocontrollight,temperatureandwaterinputs

WHY Imminent?

Imminent ready to use BoxPwrsoftware framework reduced the development time and cost of the solution. The standards based framework with unified APIs, safeguards investments as it renders the solution extremely resilient to changes in technology

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