

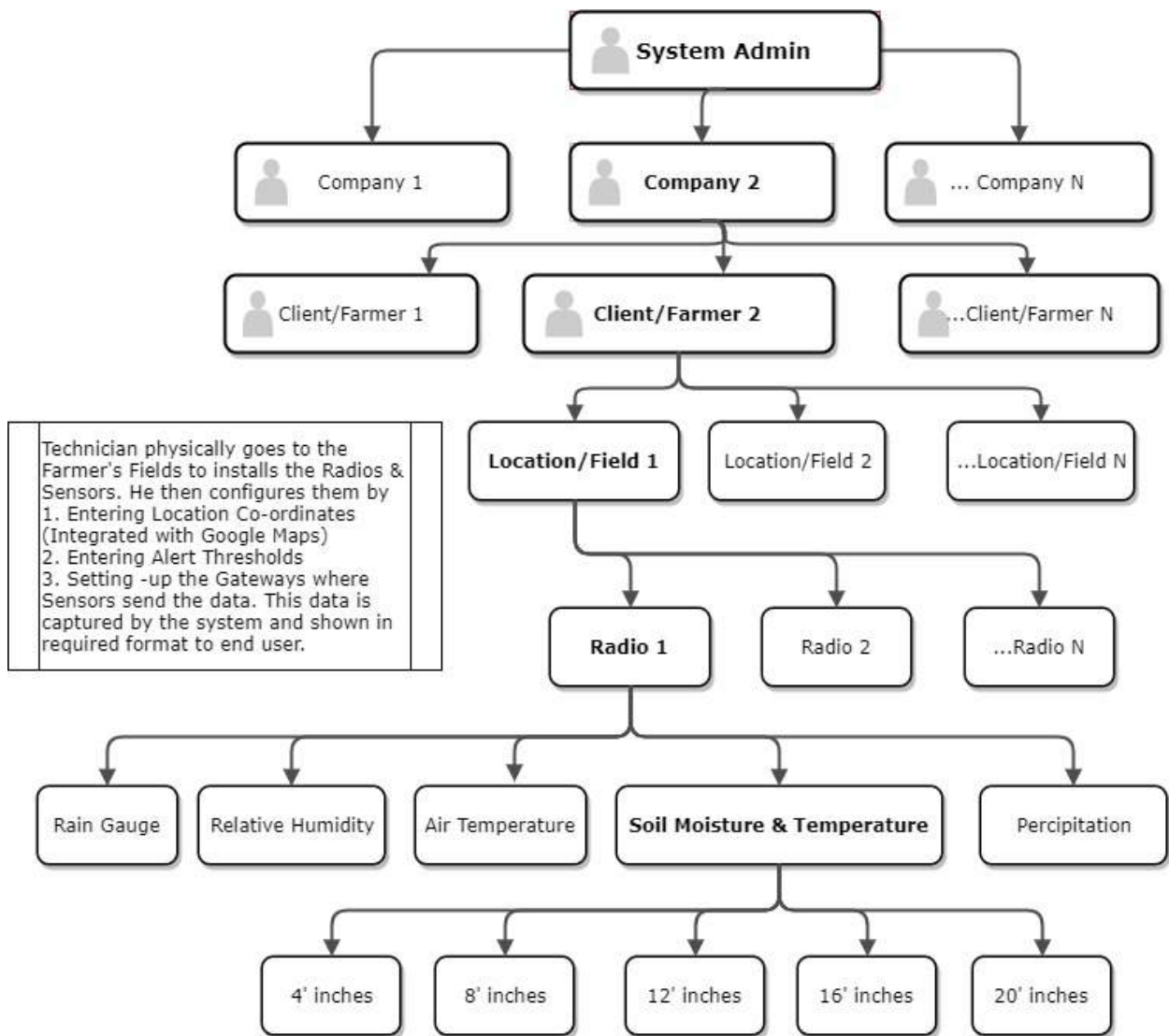
IoT Digital Farming - Sensor Tracking & Reporting System

Developed by www.TeNetSoft.com

Overview: System Receives Information/Alerts from Sensors – which can be accessed by Farmer on a mobile device, laptop, computer OR via E-mail & SMS.

The data is received in Real time and Farmer can get a up-to-date information about their agricultural fields from anywhere in the world & can initiate immediate corrective actions for Alerts.

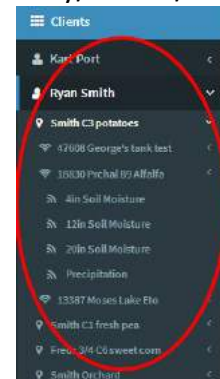
Hi Level System View



Main System Entities

1. System Administrator
2. Company Administrator
3. Technician
4. Farmer/Clients
5. Fields/Locations
6. Radios
7. Sensors
8. Gateways

Gateway/Radios/Sensors



System Administrator: Performs the following tasks

1. Add/Modify/Delete Companies in the system.
2. Add/Modify/Delete Various Soil Types
3. Add/Modify/Delete Various Crop Types
4. Add/Modify/Delete Types of Graphs and its settings
5. Can the monitor the health of the whole system across different company accounts.

Company Administrator: This section is for Companies who use the system.

Each Company can have multiple Clients/Farmers under them.

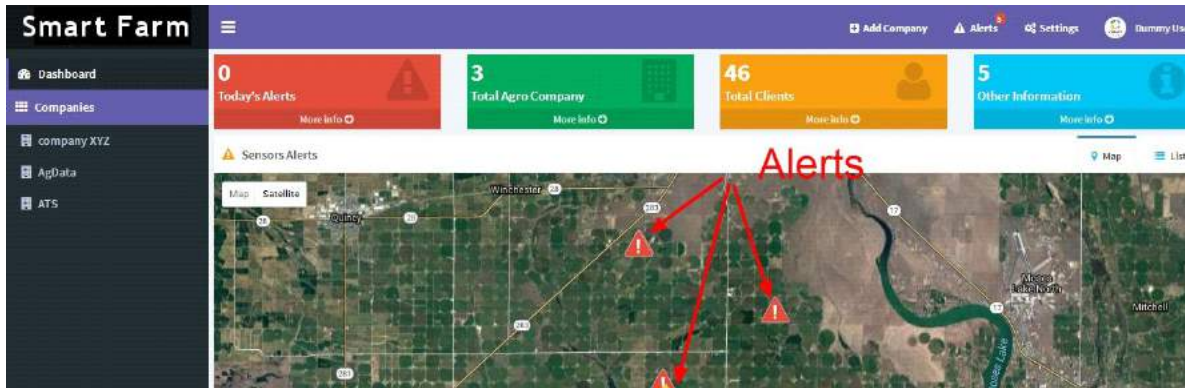
Technician: Is the link between Companies and Clients/Farmers and performs the following tasks

1. Physically installs the Radio at a location.
2. Enters the Map Co-ordinates of the Radio in the system.
3. Configures the Gateway so that Sensors attached to the radio start transmitting the data to the gateway.
4. Enters the "Threshold values" for Sensors so that the system can send alerts when the thresholds are reached.

Farmers/Clients: Companies have multiple Farmers/Clients under them and these Farmers/Clients have multiple Fields/Locations where Radios are installed.

Screenshots

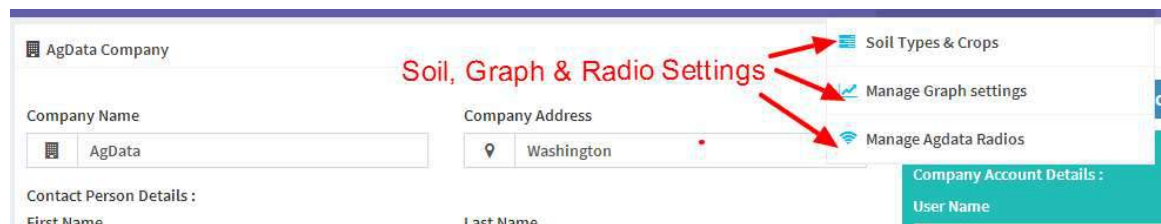
Alerts integrated with Google Maps



Alerts in List Format



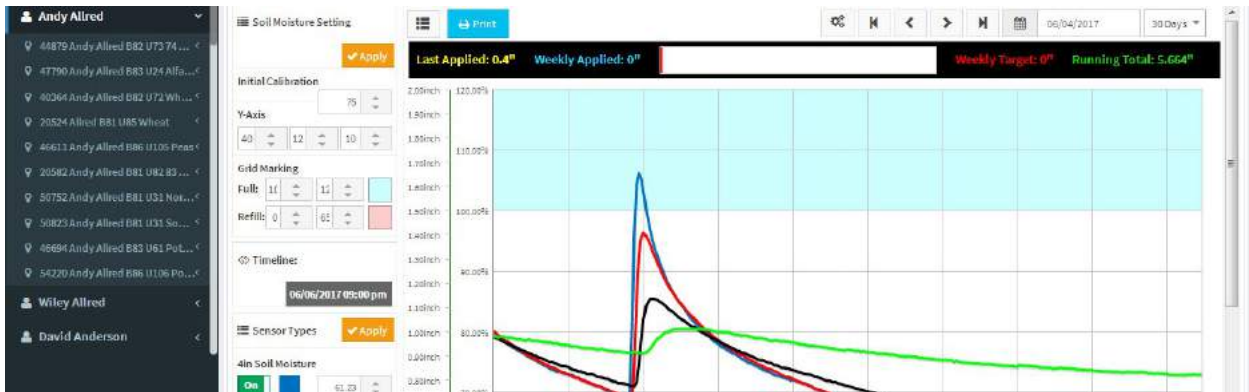
Section to Manage Settings like: Company, Soil, Graph & Radio



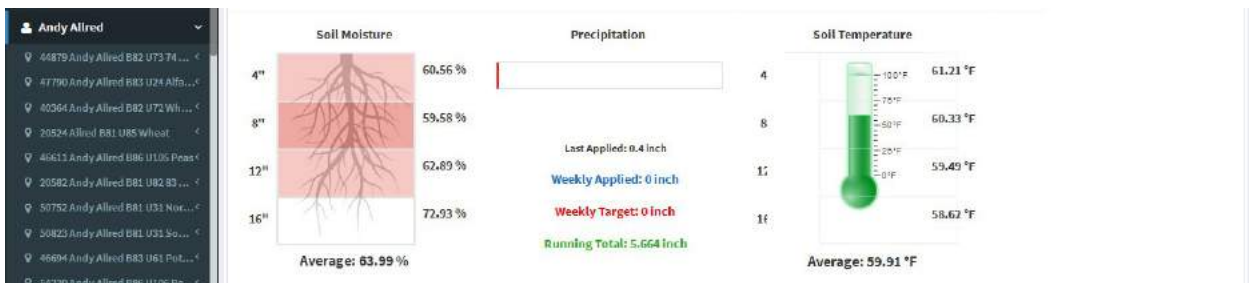
Formats for Showing Data - Graph, Widget, Map, List & Notes

Graph Format: User can view the in various Time periods like, date range, 6 hours, 1 week, 1 month etc.

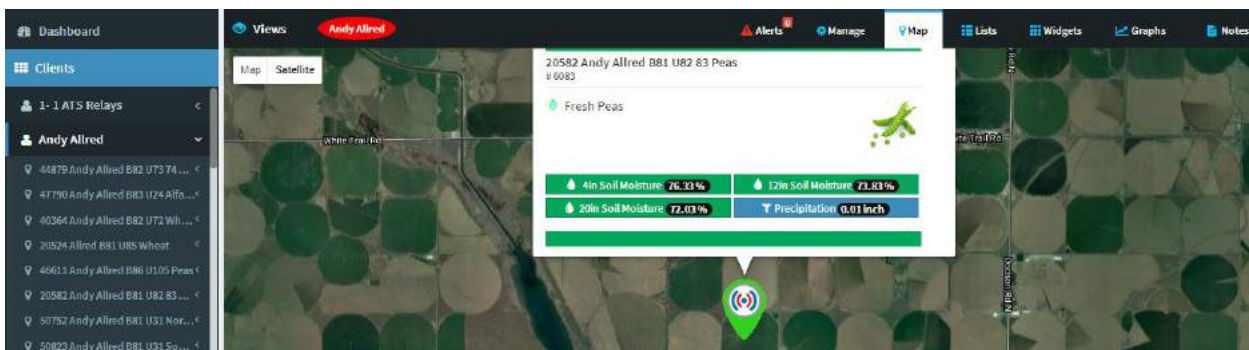
User can also turn On/Off a particular Sensor Input on Graph & Highlight Grid Markings.



Widget Format: Sensor data from Soil Moisture, Precipitation & Soil Temperature is shown in Widget Format. The widget colors will change if readings exceed threshold values entered in the backend.



Map Format: Integrated with Google Maps and show the Crop & Sensor details



List Format: Displays location wise list of sensors & its latest values.

44879 Andy Allred B82 U73 74									
Alfalfa									
[44879 Andy Allred B82 U73 74 Alfalfa]									
	4"	8"	12"	16"	Average	Last Applied	Weekly Applied	Weekly Target	Running Total
Soil Moisture	66.58%	59.58%	62.89%	72.92%	63.99%	0.4 inch	0 inch	0 inch	5.664 inch
	4"	8"	12"	16"	Average				
Soil Temperature	63.21°F		60.33°F		59.89°F	58.62°F			59.91°F

47790 Andy Allred B83 U74									
Alfalfa									
[47790 Andy Allred B83 U74 Alfalfa]									
	4"	8"	12"	16"	Average	Last Applied	Weekly Applied	Weekly Target	Running Total
Soil Moisture	77.59%	73.18%	68.89%	69.7%	72.34%	0.36 inch	0 inch	0 inch	4.36 inch
	4"	8"	12"	16"	Average				
Soil Temperature	59.94°F		59.32°F		58.48°F	57.53°F			58.81°F

Notes Format: Displays notes entered by farmer for each location. They can be about crops, irrigation and other details per location.

S.No.	Note Date	Content
1	03/14/2017 8:31 AM	ghgh ghgh ghghghgh
2	03/09/2017 8:35 AM	zcxas
3	03/06/2017 7:06 AM	testtesttesttest

Corp Modeling & Disease Modeling

System is being integrated with 20 year Database of University of Washington. This will allow the system to generate Corp & Disease Models i.e. administrator can find out the probability of a crop being hit by a disease.

The system can also run predictive production models to how much output can be expected in a season.

These technologies will use the concepts of BIG Data & predictive analysis. The system has the potential to be integrated in Blockchain & deliver in Farm to Fork Model.

Mobile or Lite View at: <http://45.56.95.78/sys/lite/graph.php?q=do136> (kindly, use an android or ios device to view this link)