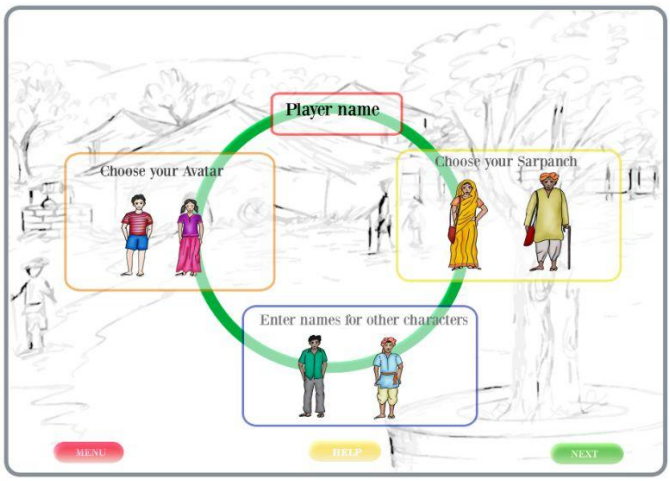
START

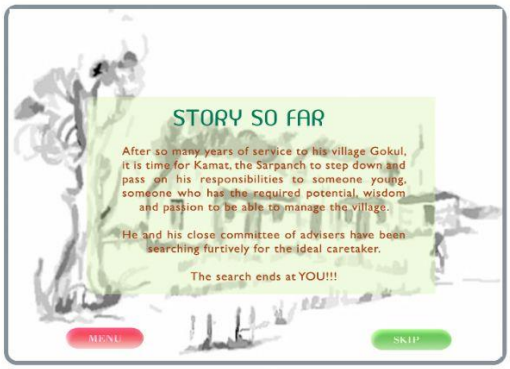
This is the customization screen. The user clicks on Player Name and enters his name and can then choose his player form, as well as choose and name the other characters he wants should feature in his game, in a text box which appears on clicking on the character.

The interface is easy to comprehend and the player is bound to go through all the 4 boxes and make his choices.



SCREENS THAT FOLLOW

The mission statement and the storyboard. Each fitted into one page. The player has the option to skip if he wants to.



The text of the Mission, Storyboard and the dialogues have been edited to make it more concise and shift the focus from reading to playing.

INTRODUCTORY CONVERSATION

In the practice mode, these dialogues come before the play area. Otherwise he player is taken straightaway to the play area.
Henceforth no screens would be popping out during the game for the dialogues/ instructions. The dialogue boxes included in the mail play area.

"The village of Abujmara, on the other side of the forest has been flooded and its people are homeless now and have sought help from us. The Panchayat has decided that the forest cover next to our village, is where the Abujamara people will move soon.
It is our job to help them establish a village on this land, and to rehabilitate the poor people.

Come, let's begin."

◀ Interesting graphics complement the Panchayat's dialogues.

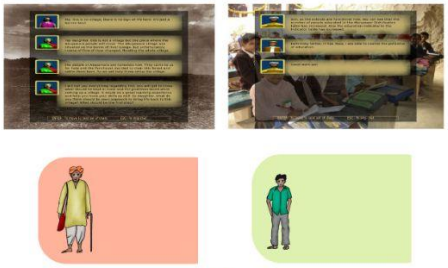
THE CHALLENGE BEGINS...

"Hello_____. You are one of chosen few to take on the mantle of becoming the Sarpanch after me, once you prove your skill. But before that happens, you have to be well-versed with how a village is managed. I will assist you in developing your skills...Come with me...."

The player is addressed by his name. here and all through the game. The option to skip this dialogue given.

PLAY AREA

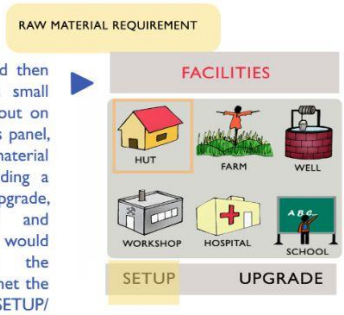
EARLIER DIALOGUE WINDOWS



Instead of dialogues appearing in modal windows that interrupt the flow of the game, these windows can be provided for in the main play area itself.Whenever an instruction needs to feature, this window with the dialogue on it can slide into the play area from the ight.In case of more than one person's dialogues , more of these windows can slide in.

GRAPHICAL ELEMENTS INCORPORATED

On selecting HUT and then hovering on Setup a small window , would pop out on the top of the facilities panel, listing out the raw material requirements for building a house.In case of an upgrade, selecting a facility and hovering on upgrade would do the same.If the requirement is being met the player can click on SETUP/ UPGRADE.

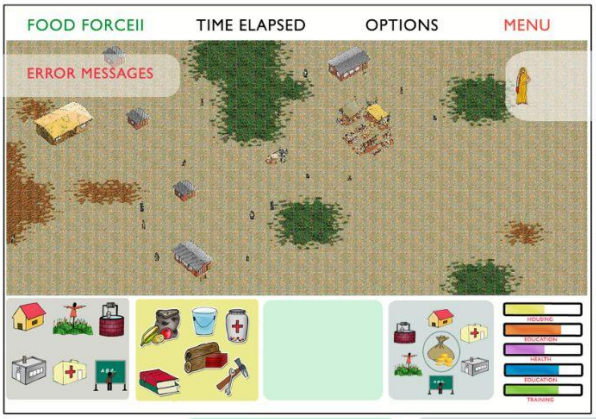


On selecting a RESOURCE and then hovering on BUY/SELL a small window , would pop out on the top of the RESOURCES panel, listing out the amount of the resource presently available in the village.Accordingly the player can trade goods.

Thus separate windows appearing on the screen do not need to disrupt the play area.

A ROUGH LAYOUT OF WHAT THE PLAY AREA MAY LOOK LIKE

Prominent ERROR MESSAGES appearing from the left.



OPTIONS would enlist options such as turning off / on dialogues, enabling Voice Instructions along with text (that would make it far more engaging for the player).

CHAT WINDOWS appearing from the right, merged with the play area

PLAY AREA with its captivating graphics made larger.

INDICATORS , made conspicuous with the use of bright colors.

This panel could be included if needed. Stick figures denoting categories and a pie chart or drop-down menu could be used rather than formidable text and numbers.

MANPOWER DISTRIBUTION

AVAILABILITY OF RESOURCES & MONEY

On hovering on the graphic, the statistics would appear on the top.

AFTERTHOUGHTS

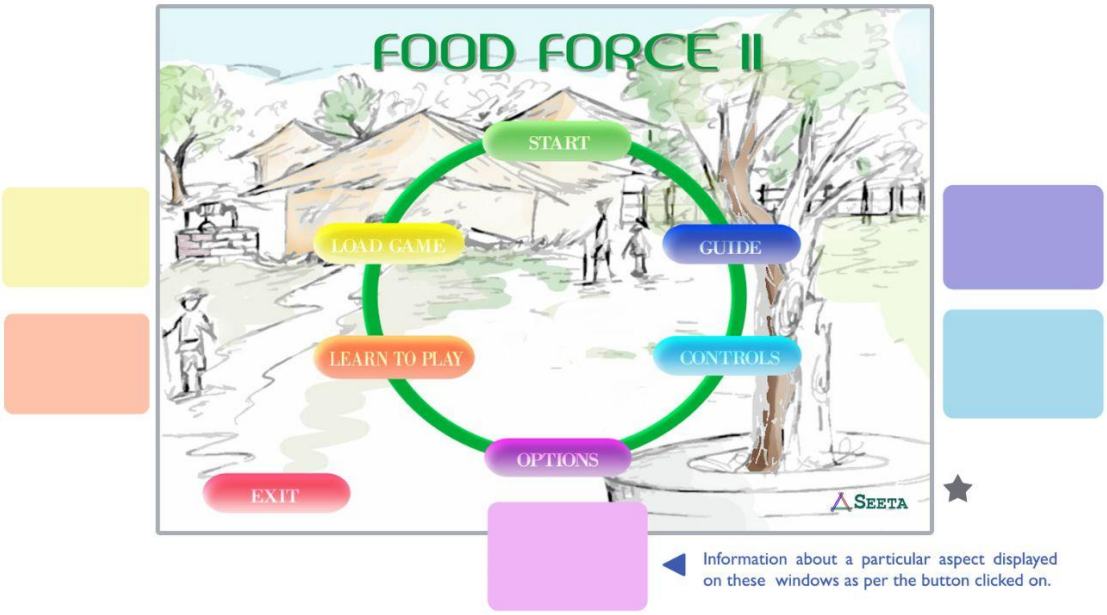
The aim should be to enrich the child with knowledge alongside helping him manage the village. Learning should be subliminal. Keep presenting interesting facts and figures about the causes of natural disasters etc that would make the child think.

PROPOSED MODIFICATIONS

CHARACTERS

A layout of what the characters could look like if modelled again. Since currently they feature only in the dialogues' window and not in the play area, they could be kept two-dimensional only.

MAIN MENU SCREEN REDESIGN



Information about a particular aspect displayed on these windows as per the button clicked on.

The design is more in tandem with the essence of the game.The menu elements arranged in a circular format, could also depict the circle of community living, work and cooperation along with avoiding having to scroll down to view all the menu elements.Rainbow colors have been used for the buttons as a representation of the entire spectrum of life ,hope, positivity, revival.On hovering over the SEETA logo, information about the company can be displayed.

★ Colors and fonts used not final.

LOCAL AIR TRAFFIC CONTROL FOR AERIAL TAXIS USING DEAUTO NEV (LATC)

SEETA

Living is learning and
Learning is living

Detecting and monitoring Air Taxis traffic to enhance their management and ensure security, privacy and safety of citizens using object detection, decentralized data storage and predictive analysis.

APPROACH/SOLUTION

- **Detection :** Identifying the air taxis in the video feed using object detection.
- **Discovery :** Logging the identities of the air taxis flying in a particular air space at any instant of time, using exchange of unique identifiers.
- **Geo-fencing :** Discovering unlawful presence and raising alarms using the detection & discovery data.
- **Monitoring :** Looking out and reporting incidents based on event detection in visual data.
- **Analysis :** Analyzing route patterns and incidents.
- **Taxi Incident Reporting** : Publish taxi incident reports, preventive measures and remediation using a decentralized twitter application over the Ethereum blockchain network and Embark Tools.

PROBLEM

Management of traffic on ground has been a major area of consideration that too when there is just one level of traffic. Now with the introduction of Air Taxis, we will be faced with the challenges of managing a multi level traffic, monitoring safe routes to prevent ariel trespassing, detecting & preventing mid air collisions and thus limiting the exposure for the citizens.

TOOLS & TECHNOLOGY

- Ethereum Blockchain
- Machine Learning
- Data Analytics
- Encryption
- Cloud Computing
- Open Source Web Spreadsheet
- IPFS distributed database
- SAP Fiori and UI5
- Apache Cordova
- React.JS, Angular JS
- Coffescript, Jquery
- Node.js server, Tornado
- Nginx, Redis web server

KEY IMPACT/OUTCOMES

A more safe & regulated local air traffic of taxis with availability of movement data and prediction of future of conditions. Taxi incident reporting, preventive measures and remediation using a decentralized twitter application.

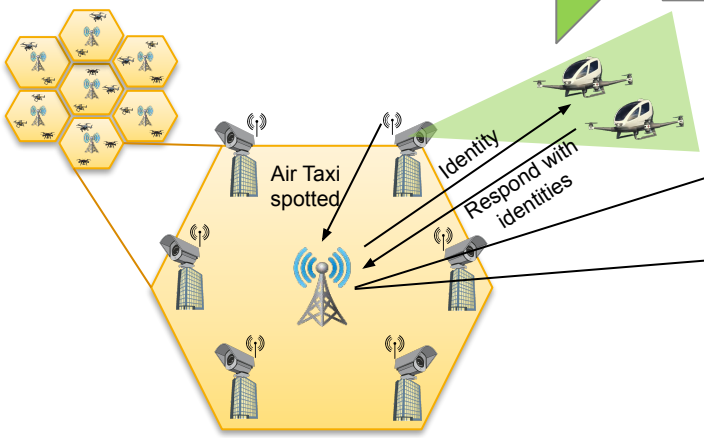
USING TELECOMMUNICATIONS INFRASTRUCTURE

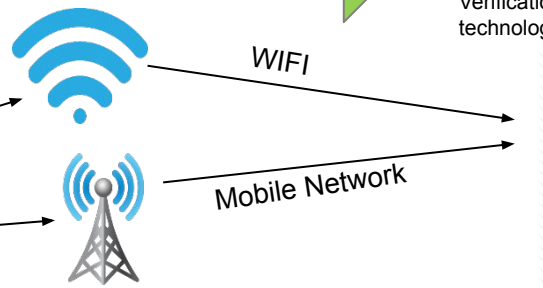
For the purpose of discovery and logging of traffic data, we can fit every taxi with a sim card and in the way as mobile towers track cell phones, in the same way the movement of the taxis can be monitored. Using the concept of roaming in mobile telephony, we can detect taxis that are operating in unauthorized areas.

Data Generation

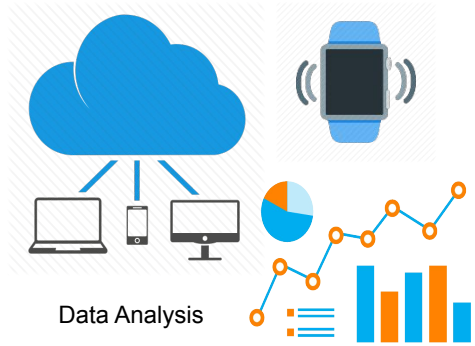
Data Transmission

Data Processing





Verification and authorization using blockchain technology



Cameras can detect the presence of a air taxi in the airspace using visual data. On spotting a taxi, the base station present at the centre of the cell beacons all the taxis in its range to send their identities and ensures that the number of detected drones is same as the number of logged drones. If a visual data shows more taxis than logged taxis, a warning is issued and all the logged taxis are sent encrypted message to spread out so that the unlogged is singled. The warning message should be encrypted so that only the logged taxis can read it.

The base station uploads the logs periodically to a central database. It sends the information about the logged air taxis and the warnings generated. After that it cleans the logs so that it can again log the presence of allowed nodes in future. When such nodes are found whose identities do not match with the allowed identities, the warning is transmitted to its owner. In case a silent node is found that did not log its presence, that warning is flagged as an alert and can be used to initiate further action.

Using the logs form all the cells we can obtain key insights like common routes, traffic schedule, drones demographics, alert frequency, accident hotspots. Using this information we can build predictive systems that can be used to ensure safety of drones as well as citizens.

SEETA

OUR MAGIC SOLUTION

Our vision is to carrying out research on new LATC and block chain models that incorporate technology and which aims at revolutionizing the air taxi traffic management scene around the world. LATCs with block chain is a technology solution designed specifically to address the needs of the local aerospace eco-system comprising of taxis, base stations, cameras and improve the operational efficiencies.

How it works?

Our solution demonstrates capabilities to monitor activities of air taxis using analysis of live feed from a network of cameras which are aided by detection software trained especially for taxis. To identify the taxis and to provide geo-fencing our solution uses a network of base stations which periodically collect the information of taxis flying in their cells. A base station sends out a beacon to all the taxis in its range to send their identity and then it matches them with its database of allowed identities. If a match to a received identity is not found then the corresponding taxi and its owner are issued a warning. If a silent taxi enters a cell and it is spotted by a camera but there is no log corresponding to it with the base station, then all the logged taxis are issued a signal to step aside so that the silent taxi can be singled out. When an operator wants to fly his/her taxi in a particular areas then s/he must get his/her taxi registered with the operators' base station. The above network of base stations can be conveniently emulated by the existing mobile telecommunications network and then taxis fitted with sim cards can be monitored similarly as cell phones are monitored by the towers.

Schema

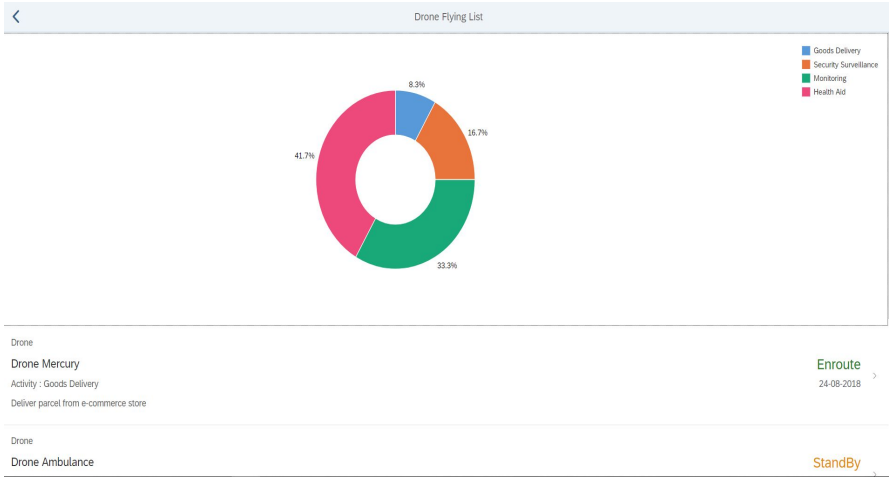
Taxi: Registration Number, Identification Code, Owner Id, Payload Type, Payload Capacity, Power, Maximum Speed, Maximum Height, Commercial, Place of Registration, Make, Color, Height, Width, Length, Weight

Owner: Owner Id, Name, Organization, Organization Type, Identity Card Type, Identity Card Number

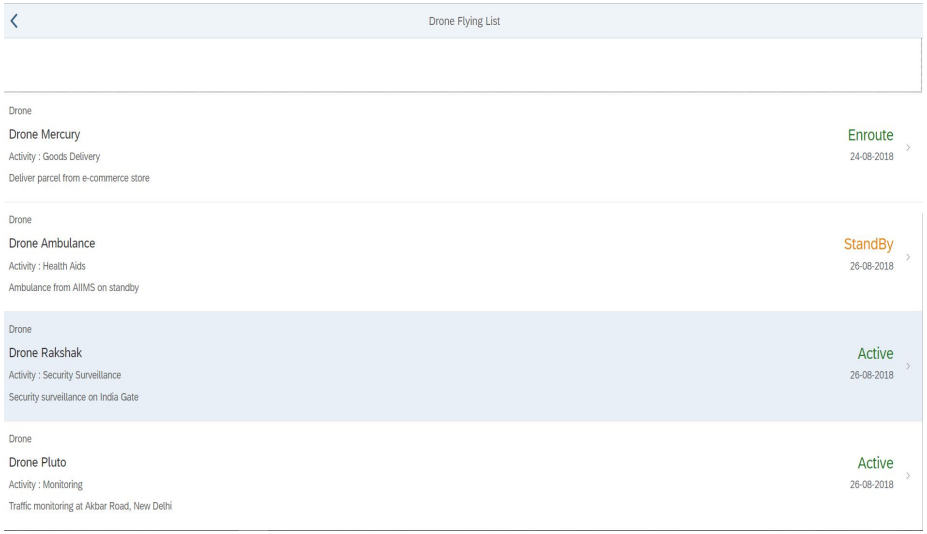
Area: Area Id, Latitude of Center, Longitude of Center, Radius of Coverage

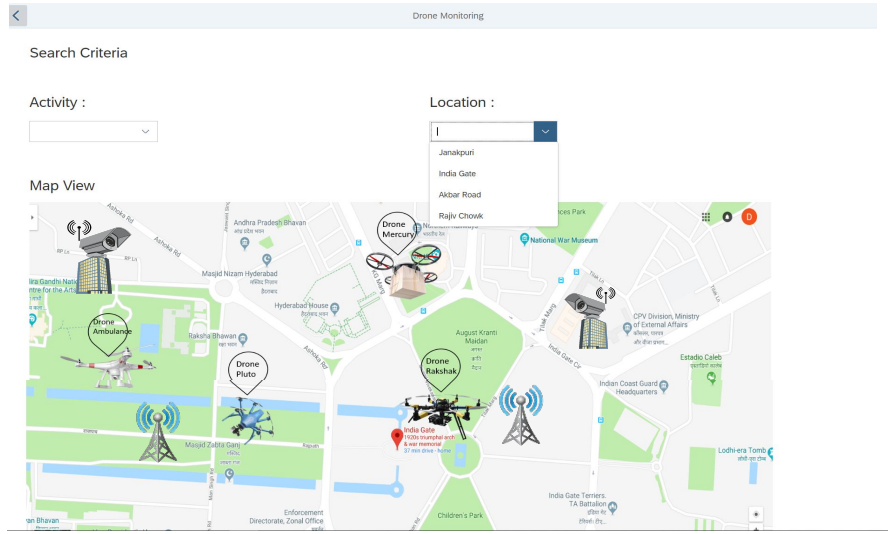
Assets: Assetid, Asset Type, Access Address, Latitude, Longitude, Area Id, Uptime, Downtime
Taxi Detected: Detected Number, Registration Number, Asset Id, Date, Time, Validity
Taxi Visited: Visit Number, Registration Number, Visit Id, Date, Time, Validity
Warnings: Warning Number, Area Id, Registration Number, Owner Id, Visit Number
Alarms: Alarm Number, Area Id, Asset Id, Detected Number, Date, Time

How our Magic Solution looks?



Traffic Analysis





Drone location and status

Drone Detection Solution

Camera Management - add/edit/delete cameras

Click "+" icon to add cameras; Click "-" icon to delete cameras; Click "i" icon to edit cameras; Prepopulated 4 Onvif demo cameras, 10 http/rtsp cameras and 1 iOS back facing camera.

Object Detection Video Analytics Configuration

Go to Settings->Object Detection->Model to select engine; Go to Object Filters to configure selected engine object types to detect or alarm; Turn on/off detect/alarm for each object or bulk change.

Live Streaming with Object Detection Video Analytics

Implemented FFmpeg http/rtsp player; Overlays include Logo / Camera name / detected object type and location bounding boxes / Engine name and current FPS; Raise alarms in red bounding box.

Alarm Viewer - view alarms and archive in details

Load saved alarms (green border) from IPFS/Ethereum; Metadata includes timestamp, camera name, object type and engine; Double click alarm to show in fullscreen; Select alarm (grey back color) to save.

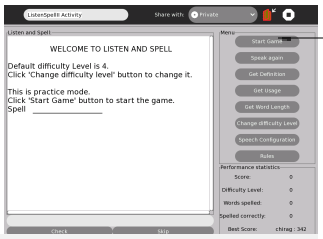
Blockchain Alarm Storage - alarm metadata & image

Save/Delete alarm metadata and image to/from IPFS p2p distributed web; Store the hash returned from IPFS to Ethereum Test Network; Provided links to access alarms and blockchain transaction details.

Sita Ramam II

Multi-Player Player Collaboration Architecture

Software for Education, Entertainment and Training Activities (SEETA)



Application Loads
(User Clicks on Start Game)

Play continues in the normal mode

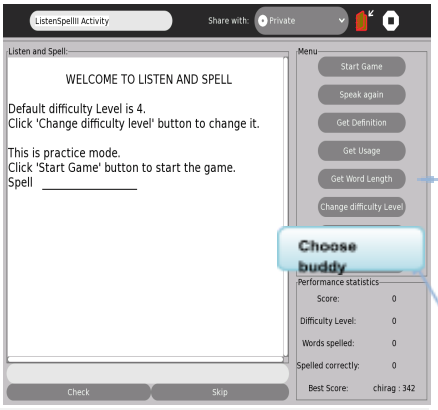
User is asked about single or multi options

Dictations N Player Challenge

User is asked about the type of collaboration

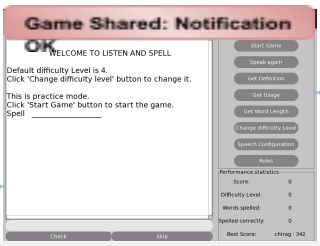
Share

Later



Choose buddy

Choose Buddy button appears



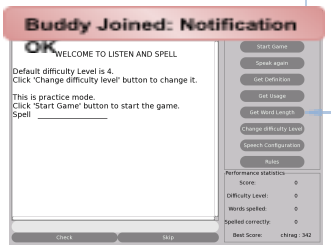
Notification of game shared is displayed

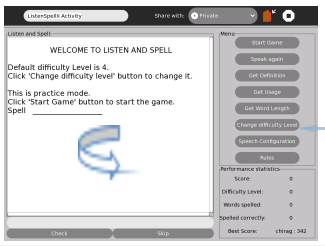
The following buddies have joined:
Buddies List
Enter the buddy name below

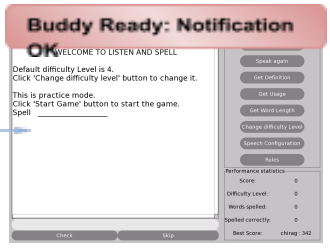
Notification to the chosen buddy is sent according to the protocol

Acknowledgement from the chosen buddy is received
NO YES

Choose Buddy button disappears



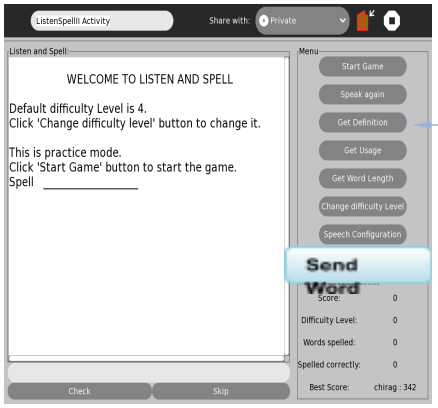




Game waits to for the buddy to get ready

Flag

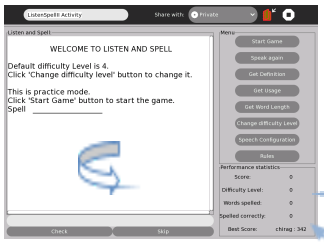
Flag



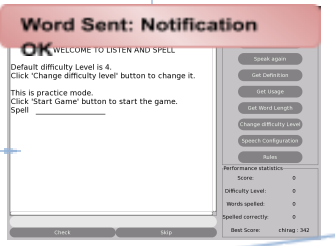
Enter the word below:

Word is broadcasted to the user according to the protocol

Acknowledgment Received

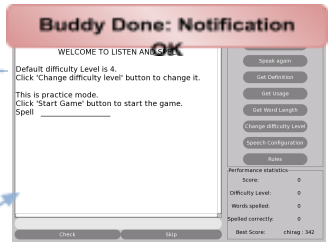


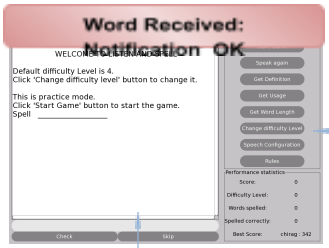
Send Word button disappears

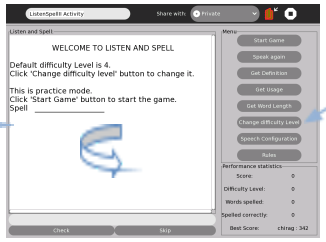


As buddy answers the word, the screen waits for say 20 sec.

Buddy done acknowledgement is received







Waiting to receive the word

Word received acknowledgement is sent

Buddy done acknowledgement is sent

Timer for 20 sec starts

Protocol:

Any acknowledgement is waited for‘t’ seconds, where‘t’ can be variable depending on the type of acknowledgement. If acknowledgement is not received within t seconds then data is transmitted again until the acknowledgement is received. It is done for say 3-4 no. of times otherwise appropriate actions are taken.

Collaborative Remote Water Monitoring, Sewage Management, Quality Assurance and Recyclability of Water using Sita Ramam II and DeAuto NEV

Enabling the Bottom of Pyramid through Water Management Services on the Cloud, Water Quality Tools, Blockchain Network and Open Source Spreadsheet, PACS

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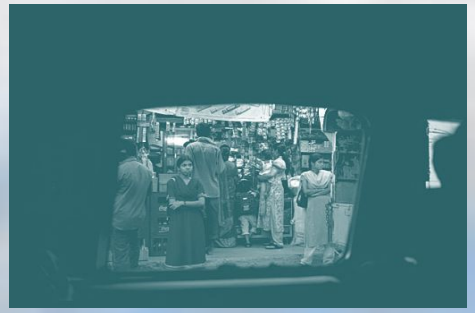
ENABLING THE BOTTOM OF THE PYRAMID THROUGH WATER MONITORING, MANAGEMENT SERVICES ON THE CLOUD



SEETA

Team

Manu Sheel Gupta: Co-founder, Director and CEO at SEETA

Manu is also Co-founder, Director at Aspiring Investments Corp, California, USA; Mentor, Visiting Expert at NSIT Incubation Centre funded by Delhi Government.

- Former South Asia Lead at One Laptop Per Child, Cambridge, United States of America
- Associate Product Manager at Servigistics India Office
- Co-authored over 15 research papers published in international conferences, journals
- Invited speaker at RSA Conference, San Francisco; Google, India and University of Delhi
- Education: Bachelor of Engineering in IT from NSIT, University of Delhi, India.
- South Korea Collaboration: Special Award Presented to SEETA, 24th Global Contest, South Korea organized by NIPA and IPAK in December, 2012.

Vithika Gupta: Platform Engineer at SEETA

Developer of Business and Financial products and integrated with ONVIF SDK.

- Open Source Developer and Advocate of web and android projects.
- Education: Computer Engineer, Banasthali University, India

Deepti Kotwal: Platform Engineer at SEETA

Developer Associate Consultant and Mobile Application Developer at SAP India Pvt. Ltd.

- Mobile Development expertise in SAP technologies like Fiori, UI5, Syclo, Hana, Cloud
- Education: Bachelor in Information Technology, Uttar Pradesh Technical University

SEETA

SOCIALCALC

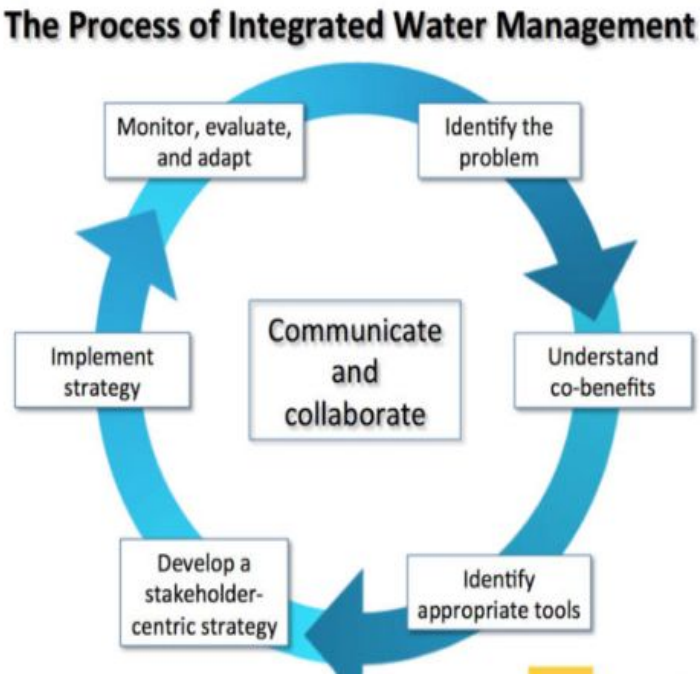
EXPANDING CLOUD COMPUTING TO MOBILES

Vision / Mission

Our vision is to carrying out research on new models that incorporate technology and which aims at revolutionizing the water management, monitoring and re-usability practices around the world. The technology solution is designed specifically to address the needs of the water, health and environment eco-system comprising of civic bodies, water management units, government, citizens, hospitals, laboratories, R&D organizations and improve the operational efficiencies.

Just in Time service

Availability of water records in the city suffering from environmental issues across different stakeholders through a secure blockchain network



Better Water Management

Journal of water management records covering complete geo-location history improve the outcomes of policy implementation

Record Management

Quality documentation reduces the issues regarding water management policies.

Transparency

Insurance agencies can utilize the data to provide customized house insurance plans to the customer. Ground water are at an all time low.

Research

Research laboratories can use the data for diagnosis of water borne diseases, suggesting personalized action to water treatment plants

Web Application

Cloud based web application with chat based interface for quick water wastage attention

SEETA

Problem Statement

- Today everyone is concerned about the potential water scarcity in the face of increasing, mainly population-driven, water demands, and its consequences on our energy and food production.
- Increasing globalization is motivating the implementation of new rules and procedures for the international trade of goods and services, reflecting the increasing influence of multinational firms engaged indirectly in water use and transfers.
- Climate change now occurring makes it even more difficult to rely on this assumption of stationarity; historically observed data are no longer adequate to meaningfully plan for climate variability and extremes.
- Changes in climate can shift and alter the shape of the entire probability distribution of future hydrologic events and water demand.
- Inflowing water quality is as important as water quantity. Ecosystem changes may be caused by minor water quality changes. Groundwater systems are particularly vulnerable freshwater resources: once contaminated, they are difficult and costly to restore.

FACTS

By 2050, the world will have to feed and provide energy for an additional 2–2.5 billion people as well as meet the current unsatisfied power needs of a billion. To meet the nutritional needs of this additional population, we should consider the amount of water that is consumed in the production of different goods and, in particular, energy and food. Energy and food security are demands that are particularly critical to water managers.

Water is increasingly becoming a priority policy issue at the international level. The third United Nations World Water Development Report [*United Nations World Water Assessment Programme (UN WWAP)*, **2009**] warns, in an unprecedented fashion, that extremely serious consequences may result from the current inequitable, unsustainable use of water.

SEETA

Impact

What technology will reach the Masses in the right manner?

- Gartner placed Cloud Computing and Machine Learning amongst the top 10 strategic technologies for 2018
- Need to customize Technology to suit the needs of Asian and Global Markets
- Each software needs to go up to the Cloud
- Our focus: On Water Management, Monitoring and Reusability software

The Water Management, Monitoring, Quality Assurance and Reusability Application on the Cloud and Mobile

SEETA

Product - Water Management and Monitoring Portal

Reliable background for building a good portal for citizens focused on cost effective usage of water

- Cloud interface for storing Water data on the Cloud
- Separate interfaces for Policy Makers/Government and Citizens/Consumers
- A web interface for allowing Citizens/Government to upload data
- Ability to comment on a prevention scheme and reports which have been shared.
- Ability for citizens to share their profiles/reports with advisers they chose
- Collaboration to allow different advisers/citizens to work on same area simultaneously
- Collaboration to allow citizens to view online water management facilities closest to their
- location and allow them to chat and take advice
- Mobile Application to perform all these services through mobile
- Emergency Water Management Services

Water record portal for Government, citizens, professionals as well as civic bodies, to interact and store data on the cloud

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Product / Service Details and Benefits

APPLICATION MODEL

Cost Effective Water Management/ Monitoring EVERYWHERE!

WHAT'S Water Management/Monitoring ON THE CLOUD?

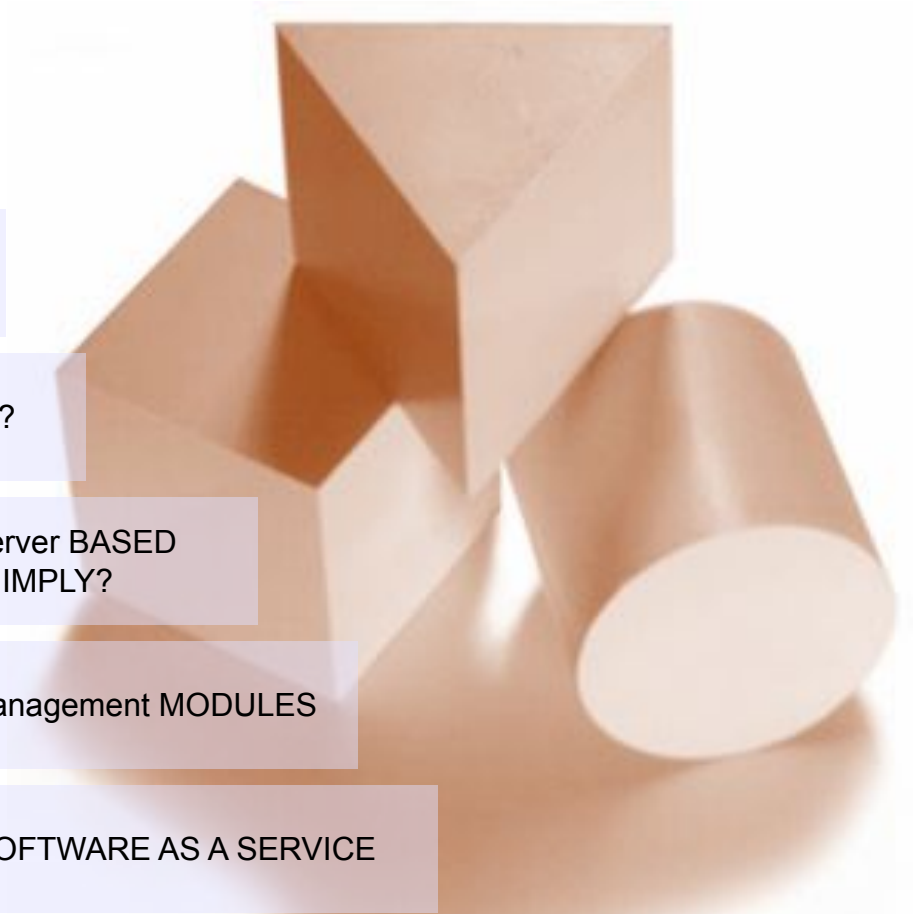
WHAT'S ON THE CLOUD?

WHAT DOES Server BASED SOLUTION IMPLY?

Water Management MODULES

SOFTWARE AS A SERVICE

SERVER APPLICATION MODULES/MONITORING



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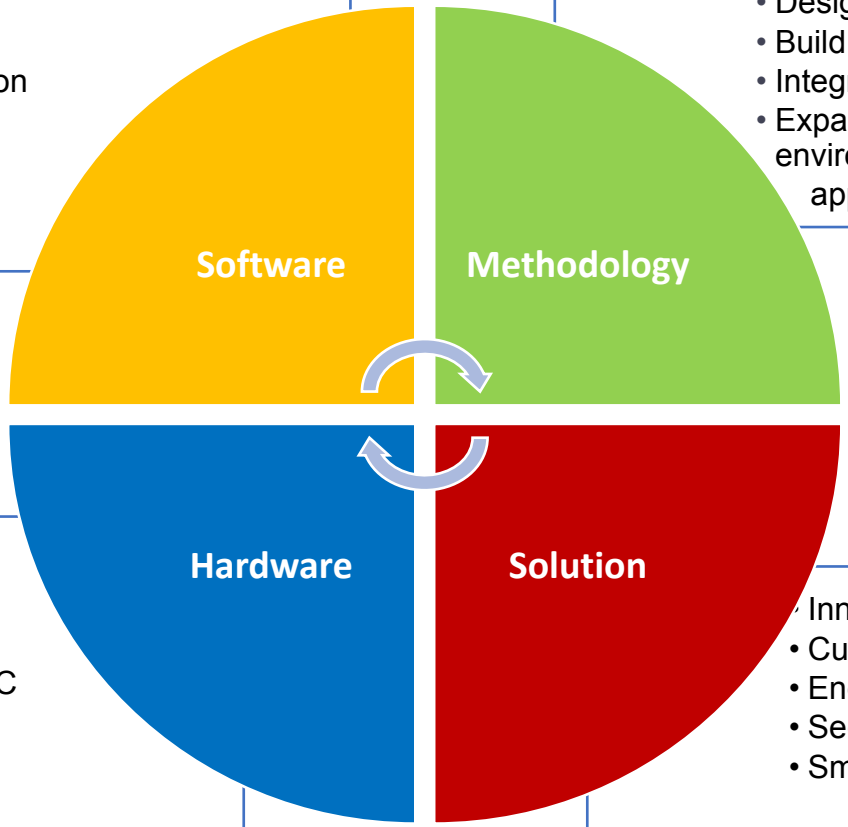
Value Proposition

- Machine Learning
- Blockchain
- Data Analytics
- Gesture Recognition
- Cloud Computing
- Mobile/web app
- Wearable, AR, VR

- Analyze Needs
- Design Software
- Build Hardware
- Integrate and monitor
- Expand and sustain, environment friendly approach/strategy



- Water Management Device integration, GAIT
- DICOM Server, NFC
- dSpace tools for simulation, mechatronics, data acquisition

- Innovative, easy to use
- Customizable
- End-to-end
- Secure, cost-effective
- Smart user interface

SEETA

Viability

What does the Water Management, Monitoring and Quality Assurance on the Cloud mean?

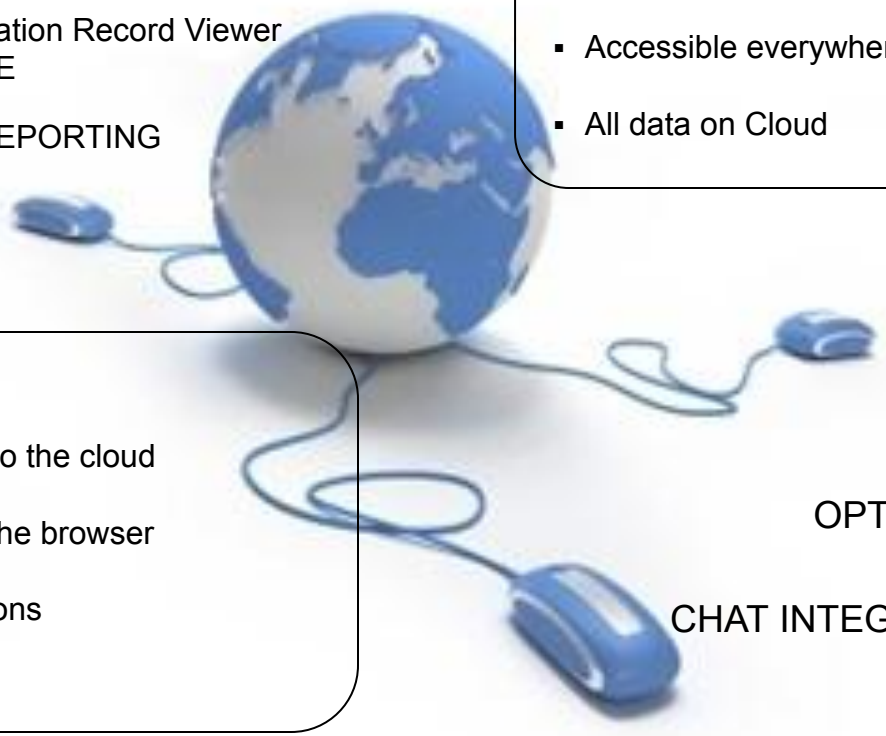
Water Geo-location Record DATA ANYWHERE

Water Geo-location Record Viewer EVERYWHERE

SIMLUTANEOUS REPORTING

MONITORING

- The Water Geo-location Application accessible through the Internet Browser
- Accessible everywhere, anywhere
- All data on Cloud



COLLABORATION

LOCALIZATION

OPTIMIZATION

CHAT INTEGRATION

- All the systems integrated to the cloud
- Access the application on the browser
- Server handles the operations

On Cloud – Applications Anytime, Everywhere, Anywhere

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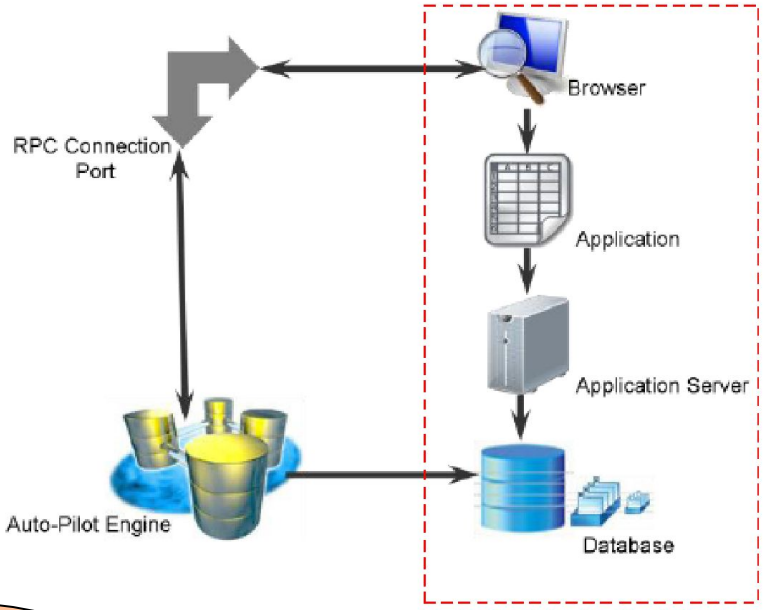
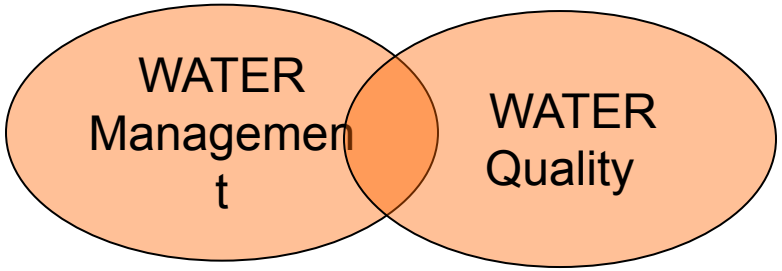
WHAT DOES ALL THIS MEAN?

What does Cloud Server based solution imply?

- Robust framework for Internet based and Mobile based Web and Spreadsheet Applications
- Complex applications can be built with Rest API and SocialCalc
- Collaboration gives huge scope for innovation





Complex Applications – Anywhere and everywhere!

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WATER Management Everywhere

Is the cloud software the optimal user framework?

Makes complex problems easy

Ability to visualize problems in a new light

Helps solve grass root level problems

Manipulate to solve all kinds problems

Our solution can be the framework for Multiple problems

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System Architecture and Workflow

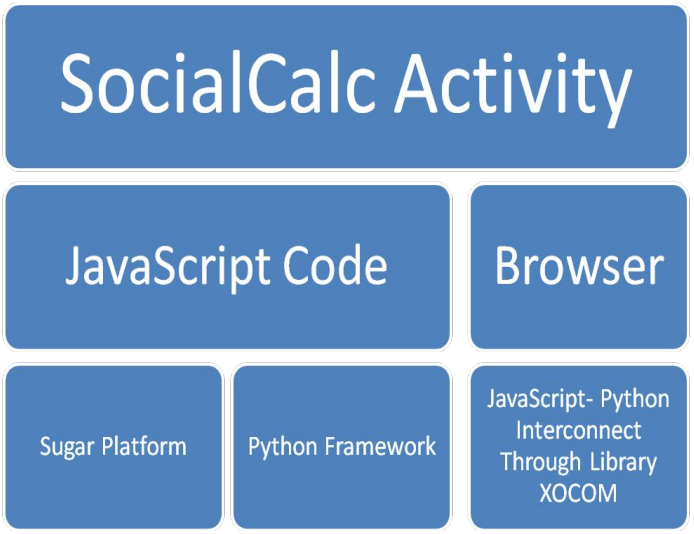
System Configuration

1. Mamp server-- http://www.mamp.info/en/downloads/
2. Tornado Application Server
3. SocialCalc and EtherCalc software
4. Ionic framework, ReactJS
5. Amazon EC2, docker and Kubernetes
6. Orthanc server for imaging

Features

1. Tabulation
2. Organization
3. Graphing and Calculation
4. Localization in different languages
5. Multi-user editing over the mesh network
6. Ability to read and edit single sheet Excel (.xls)
7. Lotus (.wk4) and other popular spreadsheet files

Architecture

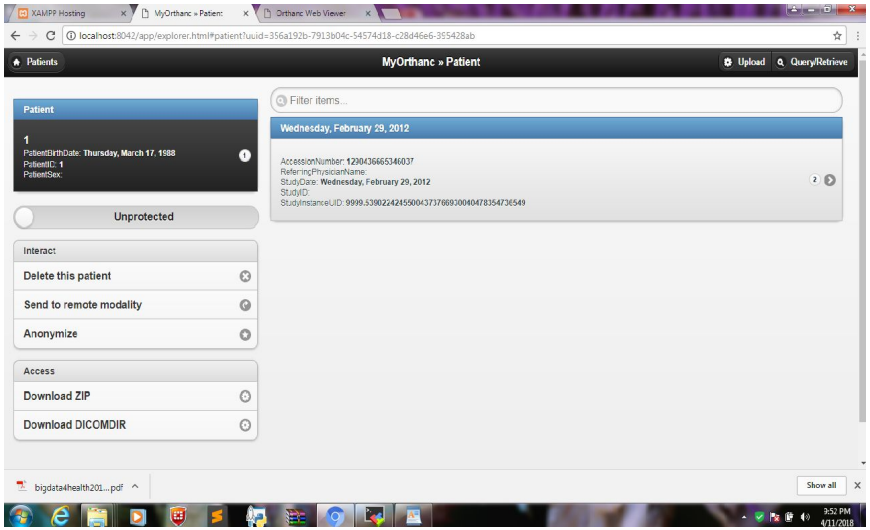


SEETA

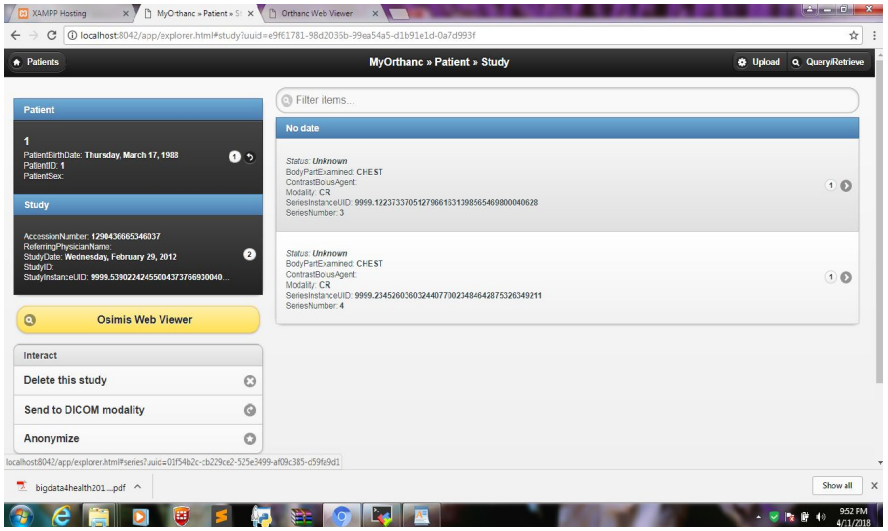
Workflow

Cloud server based application – Anywhere and everywhere!

Water Quality Sample Data query and retrieve from an instance



Viewing a water record examination for a place



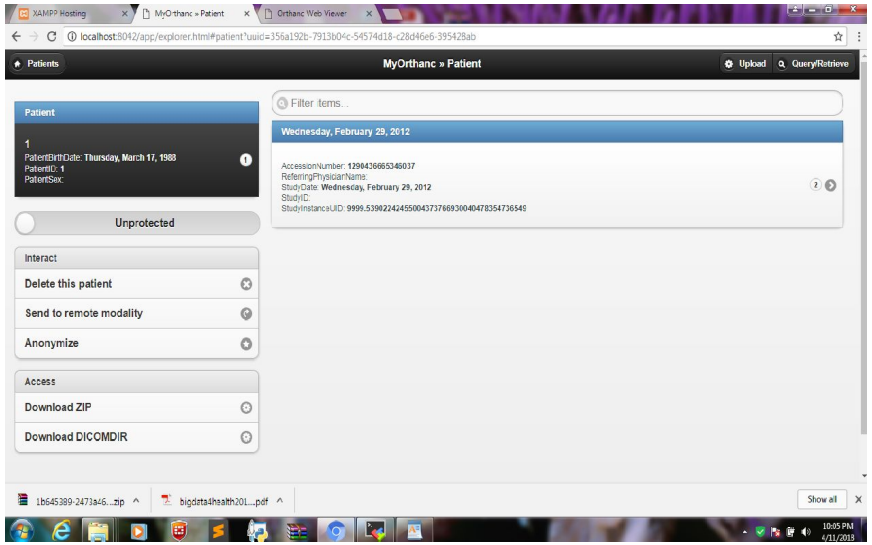
Two independent examinations available for the record currently viewed.

SEETA

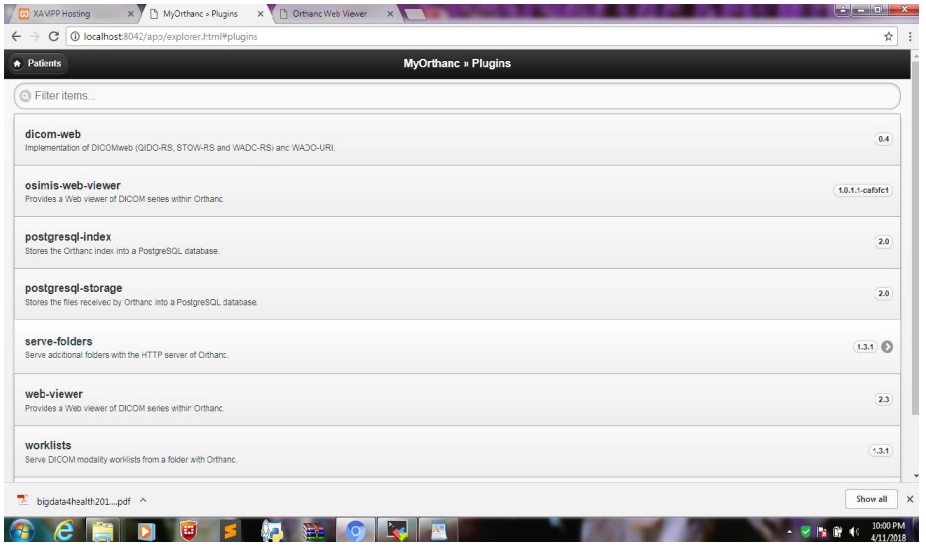
Workflow

Cloud server based application – Anywhere and everywhere!

Water Quality Sample Data query and retrieve from an instance



Download and send water management data to a remote modality

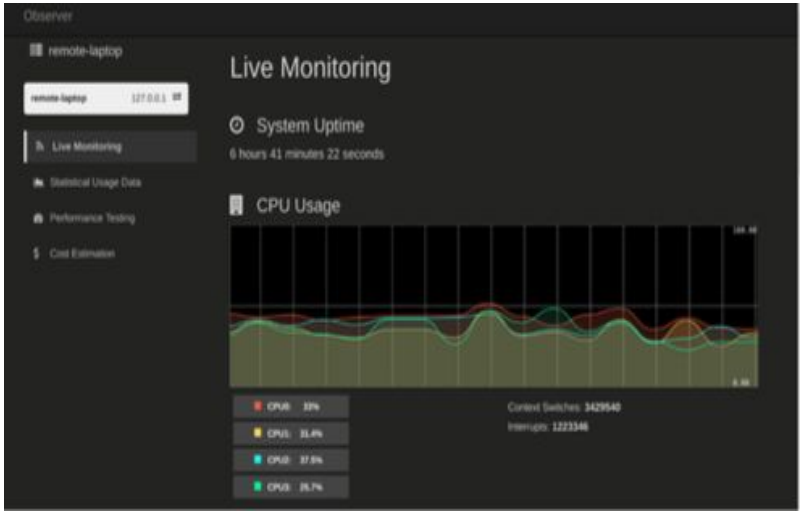


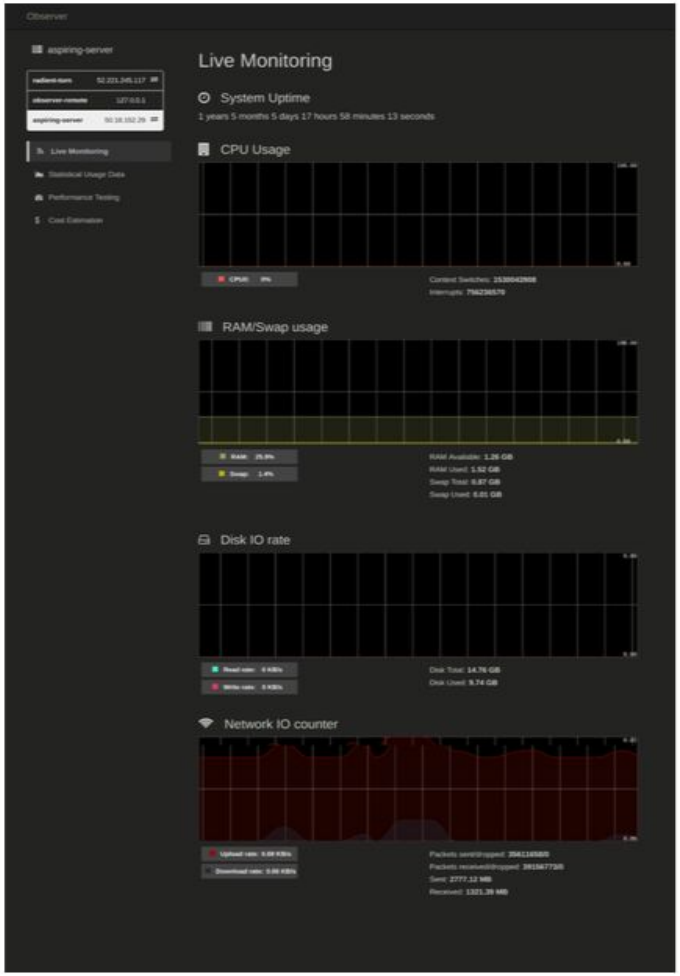
Plugins

SEETA

Server Side Development / Monitoring Solution

Live Monitoring



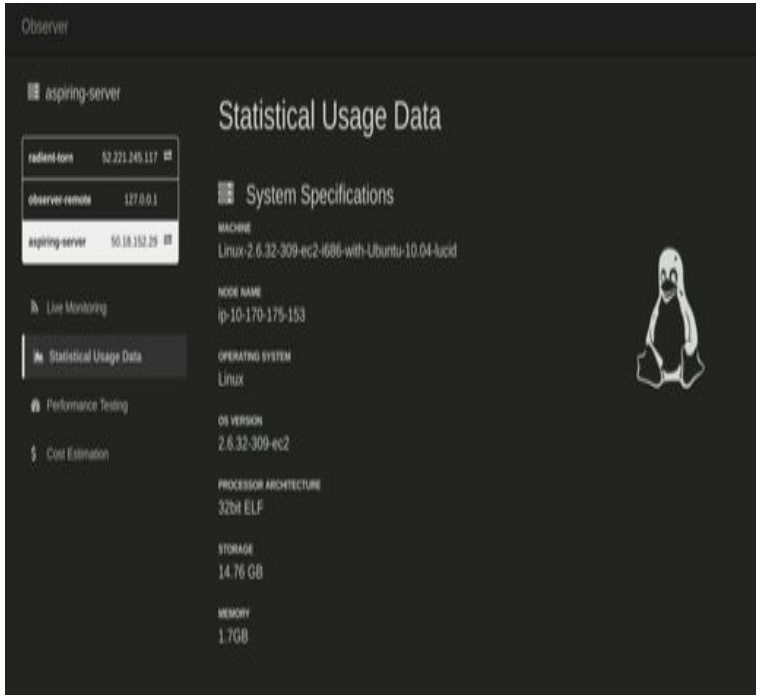


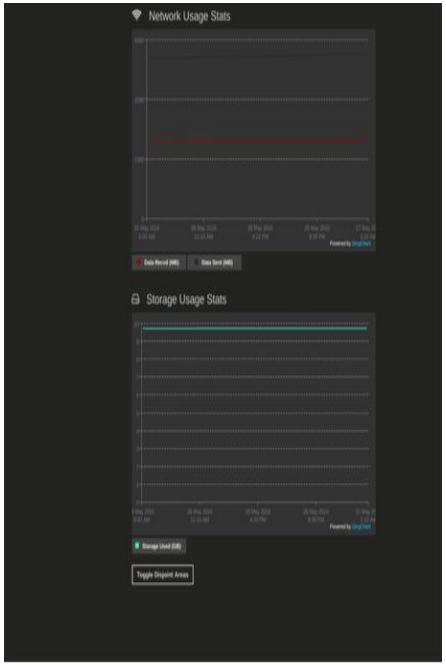
Observer

- **Remote** – Obtains monitoring data.
- **TCP** – Receives data from all Remote servers and saves to database.
- **HTTP** – Runs the website application to visualise data and execute tests.

Server side: Statistical Monitor, Usage Data Analytics

Statistical Usage Data





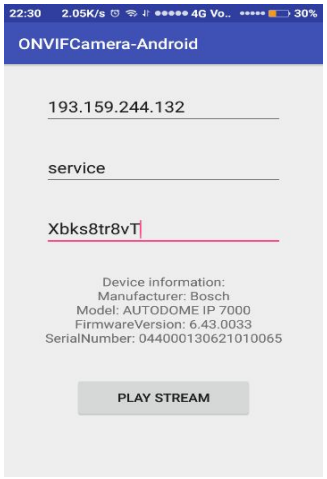
Live monitoring data from remote is stored on the database to condense them into statistical data over a longer period of time.

SEETA

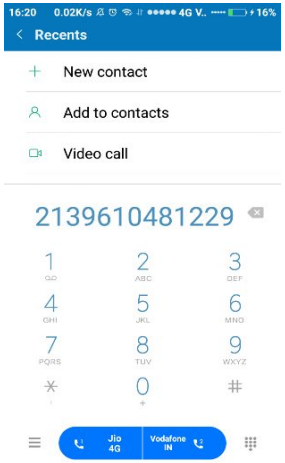
Application Modules For Water Management

ONVIF SDK

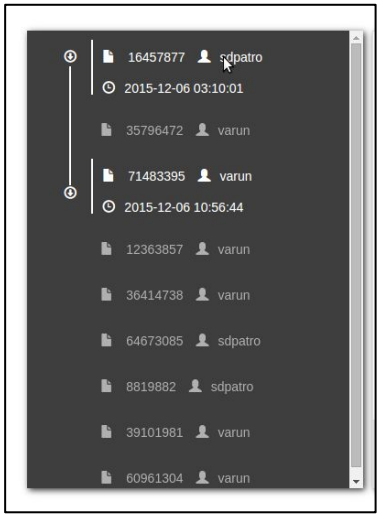
Login Module



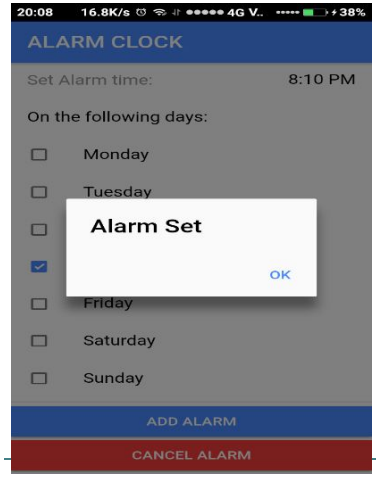
Phone Call



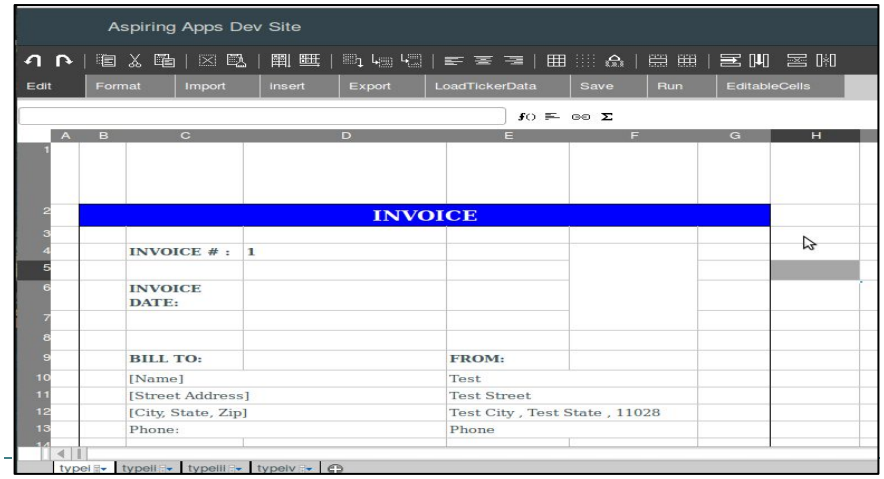
Log Manager



Alarm Settings



Spreadsheet user interface



Water Management – Using NXP Module & IOT Gateway

RED: The drone will stop its service and return to the base station when prompted to do so.The gateway receives a request from a drone(mobile) to enter the range. While handling this request the edge node light turns blue. No new requests for entry are entertained.

GREEN: The drone will be start its service and reach to the specified location with goods.The gateway knows no drone is present in the range and displays this information through the edge node with green color. The gateway allows drones to make request for entry.

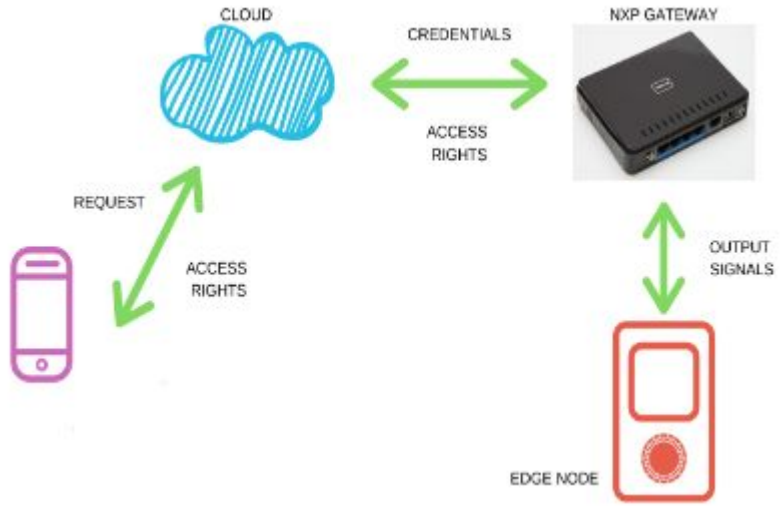
BLUE: A sudden change of state can create chaos. So, we have decided to give some time to drone to change its state.The gateway exchange credentials with the requesting drone(mobile) through cloud. If the drone is allowed to enter the end node turns red indicating presence of a drone in the range. No requests for entry can be made by other drones.

Water Management – Using NXP Module & IOT Gateway

COMMISSIONING
It is responsible for registration and commission of Gateway and End devices.

CLOUD MANAGER
It is responsible to connect the registered Gateway and End device to cloud.

DEVICE CONTROL
It is responsible for the Gateway and End device control/monitor. It receives control messages from the Cloud Manager and identify the control message is for the Thread or ZigBee device.



THREAD MANAGER
It is responsible to read data from thread network using UART interface connected to thread module and provide to TAP/TUN interface for application process.

ZIGBEE CONTROL
It is also responsible to data packet transmission to/from Device control to ZigBee devices.

OTA UPDATE SERVICE
OTA update service is responsible to make online software updates for gateway.

Business Model and Strategy

RoadMap: Ensuring successful implementation is the first step towards our goal of strengthening innovation and user interaction for integrated water management

Five step approach

1. **Community Engagement in crisis hit areas**
2. **Implement appropriate project strategy**
3. **Pilot Launch**
4. **Define management & governance structure**
5. **Expand**

Milestone Roadmap for SEETA at India:

- ✓ SEETA
- ✓ Company Representatives
- ✓ Startups funded
- ✓ Startups mentored
- ✓ Conference, Demos

- ✓ Industry partnership
- ✓ Design Solution for user base. Mentorship on business plans and feedback on execution and go to market strategy

- ✓ Prototype accomplished.
- ✓ Pilot solution implemented and feedback gathered from the community.

- ✓ On-ground governance structure defined
- ✓ Execution team established
- ✓ Committed Team Collaboration with Government, industry, universities, users.

- ✓ Business Development team
- ✓ Product Deployment started – Sales and Distribution
- ✓ New Website completed

Deployment:

Create and deploy a gateway service in the housing group/ office/ hospital that will enable the continuing export of radiology images, reports to the SEETA EWR cloud system.

Completion of supporting collateral required to fulfill services and deliverables such as the equipment, supplies and other open source software tools.

Procuring server hosting for storing and utilizing anonymized water sample images and associated clinical report data to prove that computer aided detection is viable.

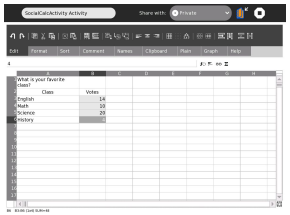
SEETA

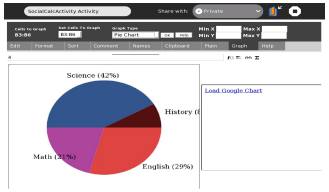
Community Learning and Partnership

OLPC

One Laptop Per Child (OLPC) is an organization dedicated to create educational opportunities for the world's poorest children by providing each child with a rugged, low-cost, low-power, connected laptop with content and software designed for collaborative, joyful, self-empowered learning

Socialtext





SocialCalc is a product by SocialText. “SocialCalc on Sugar” is a spreadsheet solution developed for functioning in the Sugar environment, OLPC’s software paradigm. SocialText is now acquired by LinkedIn.

삼성생명 SAMSUNG

Samsung Electronics Co Ltd

(Design and development of mobile products in healthcare with Media Solution Center at Samsung’s South Korea office)

sugarlabs

Application developer, platform engineer, Sugar OS deployment trainer and community outreach expert.

Netaji Subhas Institute of Technology, Delhi

NSIT — NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

Mentor at NSIT Incubation and Innovation Foundation (NSIT IIF)

SEETA

Community Learning

Community initiative at IISF 2018 (India International Science Festival)

Integrated Water Cooling/Cleaning Solution

Utilization of Waste Water

Water Piping Solution and effective utilization of waste water

Water Treatment Facility

SEETA

LOCAL AIR TRAFFIC CONTROL FOR AERIAL TAXIS USING DEAUTO NEV (LATC)

SEETA

Living is learning and
Learning is living

Detecting and monitoring Air Taxis traffic to enhance their management and ensure security, privacy and safety of citizens using object detection, decentralized data storage and predictive analysis.

APPROACH/SOLUTION

- **Detection :** Identifying the air taxis in the video feed using object detection.
- **Discovery :** Logging the identities of the air taxis flying in a particular air space at any instant of time, using exchange of unique identifiers.
- **Geo-fencing :** Discovering unlawful presence and raising alarms using the detection & discovery data.
- **Monitoring :** Looking out and reporting incidents based on event detection in visual data.
- **Analysis :** Analyzing route patterns and incidents.
- **Taxi Incident Reporting** : Publish taxi incident reports, preventive measures and remediation using a decentralized twitter application over the Ethereum blockchain network and Embark Tools.

PROBLEM

Management of traffic on ground has been a major area of consideration that too when there is just one level of traffic. Now with the introduction of Air Taxis, we will be faced with the challenges of managing a multi level traffic, monitoring safe routes to prevent ariel trespassing, detecting & preventing mid air collisions and thus limiting the exposure for the citizens.

TOOLS & TECHNOLOGY

- Ethereum Blockchain
- Machine Learning
- Data Analytics
- Encryption
- Cloud Computing
- Open Source Web Spreadsheet
- IPFS distributed database
- SAP Fiori and UI5
- Apache Cordova
- React.JS, Angular JS
- Coffescript, Jquery
- Node.js server, Tornado
- Nginx, Redis web server

KEY IMPACT/OUTCOMES

A more safe & regulated local air traffic of taxis with availability of movement data and prediction of future of conditions. Taxi incident reporting, preventive measures and remediation using a decentralized twitter application.

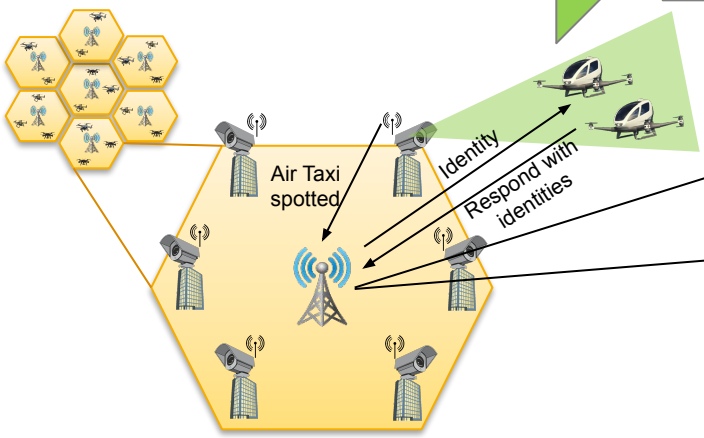
USING TELECOMMUNICATIONS INFRASTRUCTURE

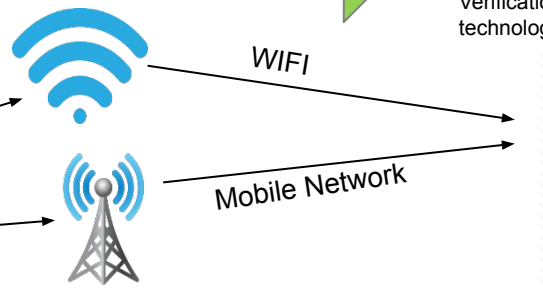
For the purpose of discovery and logging of traffic data, we can fit every taxi with a sim card and in the way as mobile towers track cell phones, in the same way the movement of the taxis can be monitored. Using the concept of roaming in mobile telephony, we can detect taxis that are operating in unauthorized areas.

Data Generation

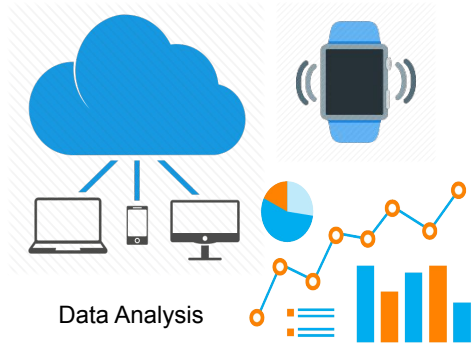
Data Transmission

Data Processing





Verification and authorization using blockchain technology



Cameras can detect the presence of a air taxi in the airspace using visual data. On spotting a taxi, the base station present at the centre of the cell beacons all the taxis in its range to send their identities and ensures that the number of detected drones is same as the number of logged drones. If a visual data shows more taxis than logged taxis, a warning is issued and all the logged taxis are sent encrypted message to spread out so that the unlogged is singled. The warning message should be encrypted so that only the logged taxis can read it.

The base station uploads the logs periodically to a central database. It sends the information about the logged air taxis and the warnings generated. After that it cleans the logs so that it can again log the presence of allowed nodes in future. When such nodes are found whose identities do not match with the allowed identities, the warning is transmitted to its owner. In case a silent node is found that did not log its presence, that warning is flagged as an alert and can be used to initiate further action.

Using the logs form all the cells we can obtain key insights like common routes, traffic schedule, drones demographics, alert frequency, accident hotspots. Using this information we can build predictive systems that can be used to ensure safety of drones as well as citizens.

SEETA

OUR MAGIC SOLUTION

Our vision is to carrying out research on new LATC and block chain models that incorporate technology and which aims at revolutionizing the air taxi traffic management scene around the world. LATCs with block chain is a technology solution designed specifically to address the needs of the local aerospace eco-system comprising of taxis, base stations, cameras and improve the operational efficiencies.

How it works?

Our solution demonstrates capabilities to monitor activities of air taxis using analysis of live feed from a network of cameras which are aided by detection software trained especially for taxis. To identify the taxis and to provide geo-fencing our solution uses a network of base stations which periodically collect the information of taxis flying in their cells. A base station sends out a beacon to all the taxis in its range to send their identity and then it matches them with its database of allowed identities. If a match to a received identity is not found then the corresponding taxi and its owner are issued a warning. If a silent taxi enters a cell and it is spotted by a camera but there is no log corresponding to it with the base station, then all the logged taxis are issued a signal to step aside so that the silent taxi can be singled out. When an operator wants to fly his/her taxi in a particular areas then s/he must get his/her taxi registered with the operators' base station. The above network of base stations can be conveniently emulated by the existing mobile telecommunications network and then taxis fitted with sim cards can be monitored similarly as cell phones are monitored by the towers.

Schema

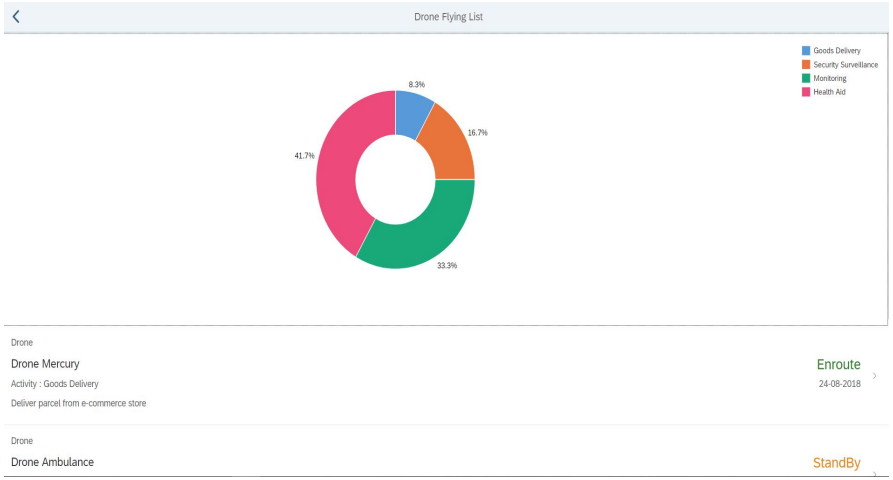
Taxi: Registration Number, Identification Code, Owner Id, Payload Type, Payload Capacity, Power, Maximum Speed, Maximum Height, Commercial, Place of Registration, Make, Color, Height, Width, Length, Weight

Owner: Owner Id, Name, Organization, Organization Type, Identity Card Type, Identity Card Number

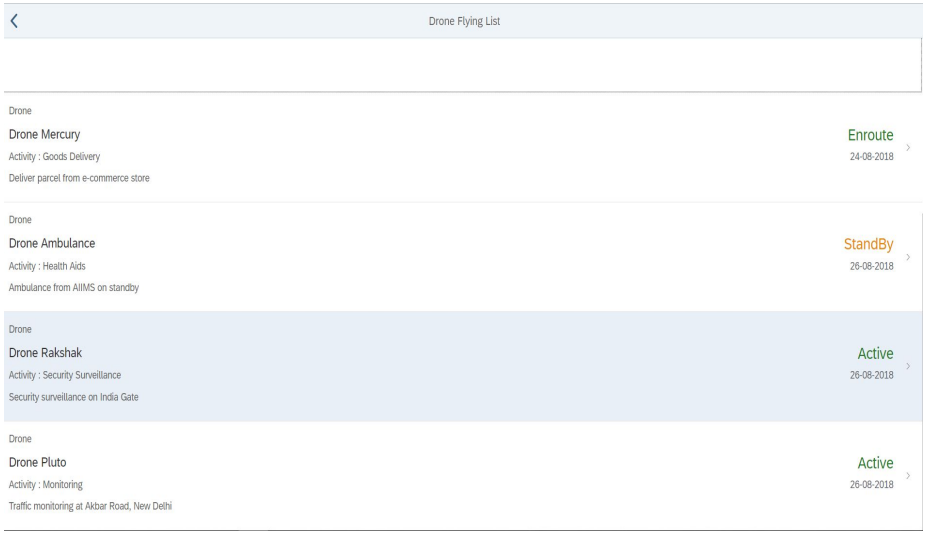
Area: Area Id, Latitude of Center, Longitude of Center, Radius of Coverage

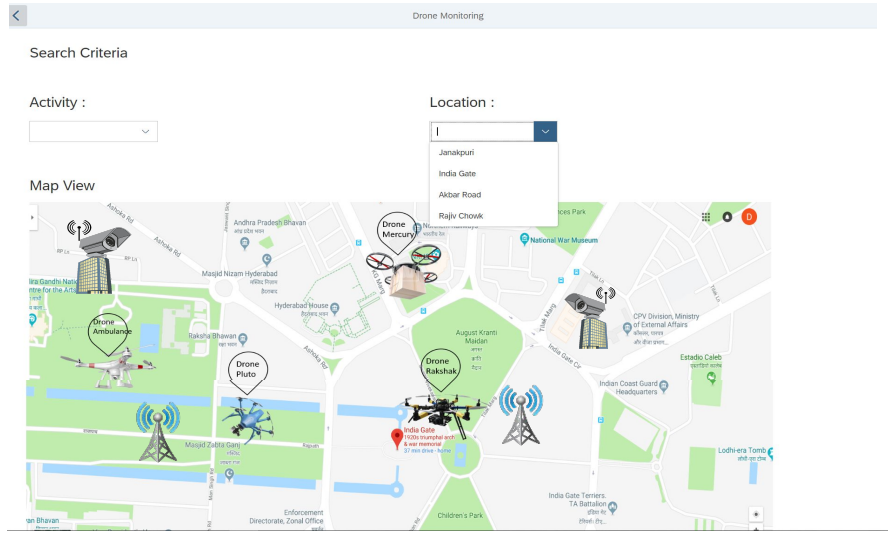
Assets: Assetid, Asset Type, Access Address, Latitude, Longitude, Area Id, Uptime, Downtime
Taxi Detected: Detected Number, Registration Number, Asset Id, Date, Time, Validity
Taxi Visited: Visit Number, Registration Number, Visit Id, Date, Time, Validity
Warnings: Warning Number, Area Id, Registration Number, Owner Id, Visit Number
Alarms: Alarm Number, Area Id, Asset Id, Detected Number, Date, Time

How our Magic Solution looks?



Traffic Analysis





Drone location and status

Drone Detection Solution

Camera Management - add/edit/delete cameras

Click "+" icon to add cameras; Click "-" icon to delete cameras; Click "i" icon to edit cameras; Prepopulated 4 Onvif demo cameras, 10 http/rtsp cameras and 1 iOS back facing camera.

Object Detection Video Analytics Configuration

Go to Settings->Object Detection->Model to select engine; Go to Object Filters to configure selected engine object types to detect or alarm; Turn on/off detect/alarm for each object or bulk change.

Live Streaming with Object Detection Video Analytics

Implemented FFmpeg http/rtsp player; Overlays include Logo / Camera name / detected object type and location bounding boxes / Engine name and current FPS; Raise alarms in red bounding box.

Alarm Viewer - view alarms and archive in details

Load saved alarms (green border) from IPFS/Ethereum; Metadata includes timestamp, camera name, object type and engine; Double click alarm to show in fullscreen; Select alarm (grey back color) to save.

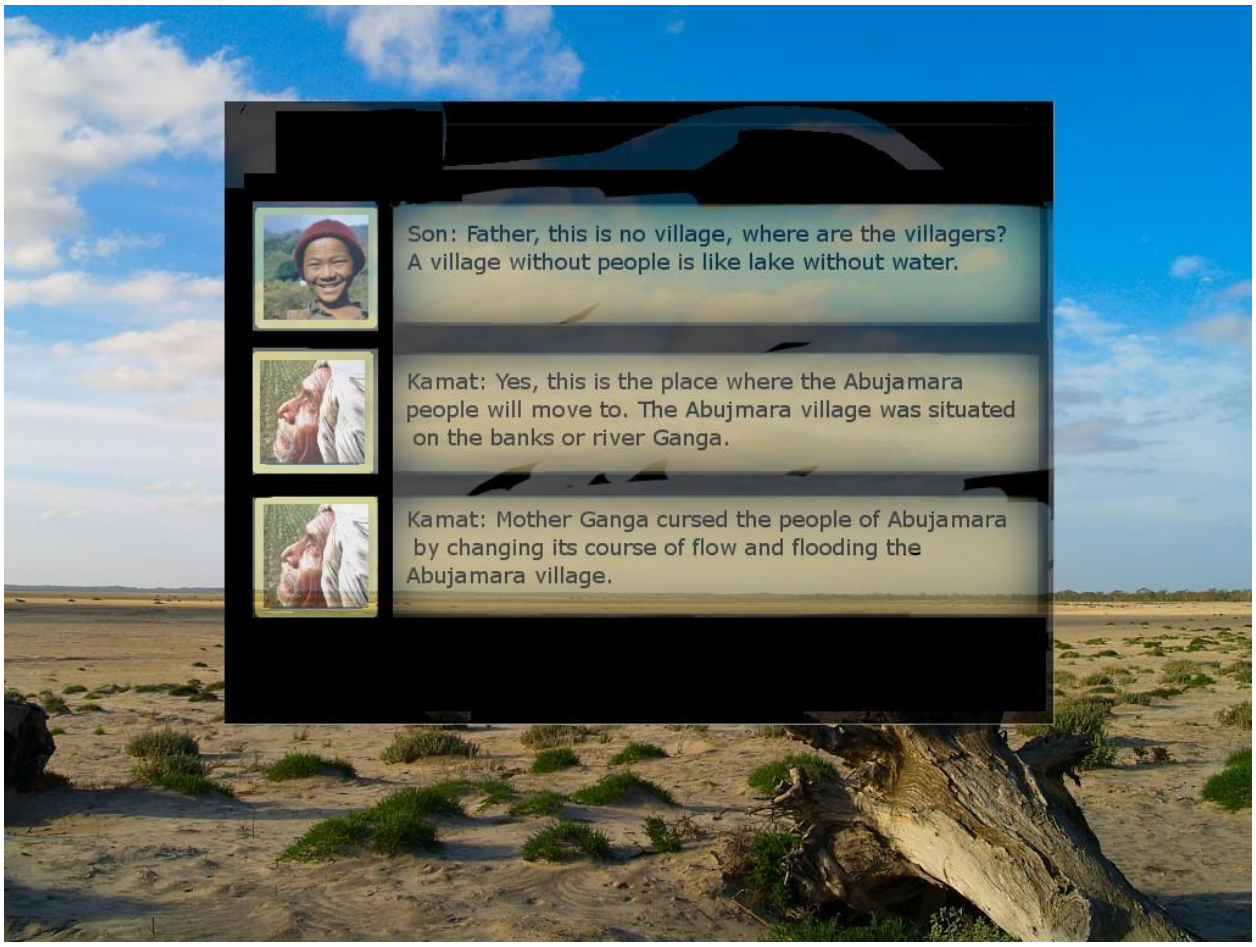
Blockchain Alarm Storage - alarm metadata & image

Save/Delete alarm metadata and image to/from IPFS p2p distributed web; Store the hash returned from IPFS to Ethereum Test Network; Provided links to access alarms and blockchain transaction details.

Storyboard

A long time ago in the great lands of India, there used to be a village called Gokul. The village of Gokul had a wise and an honest man, Kamat, as its Sarpanch. After many years of service, Kamat realized that he had grown old. It was the time to retire and pass on his responsibilities to someone young, someone who had the required potential, wisdom and passion to be able to manage the village.

He and his close committee of advisers searched furtively for the ideal caretaker. As goes the adage, often what you want, what you have been looking for, is right in front of you. The person was right in Kamat’s house, his very own son, [Name of the person to whom XO is registered].


Son: Father, this is no village, where are the villagers? A village without people is like lake without water.
Kamat: Yes, this is the place where the Abujamara people will move to. The Abujmara village was situated on the banks or river Ganga.
Kamat: Mother Ganga cursed the people of Abujamara by changing its course of flow and flooding the Abujamara village.

FIRST MISSION

Cut Scene 1:

Kamat: Hello (Name of the person to whom XO is registered).Son I hope your studies are going well in school. Now there's something that I have to talk to you about. You must know that while the studies done in the school give you a theoretical perspective of the world around you; you need to learn about how to apply this learning in real life, and be able to convert learning into action. That is true education. You need to know how to manage our village, as you shall take on the mantle of becoming the Sarpanch after me. I will assist you in developing your skills...Come let us go to the village of AbuJamara.

Me: Father, this is no village!!! I see no villagers!!! A village without people is like lake without water…

Kamat: Yes, this is the place where the Abujamara people will move soon. The Abujmara village was situated on the banks or river Ganga. Mother Ganga cursed the people of Abujamara by changing its course of flow and flooding the Abujamara village. The people of Abujamara are homeless and bereft right now. They sought help from us and the Panchayat decided to clear this forest and make it fit to live on. It is our job to help them establish a village on this land, and to rehabilitate the poor people.

Kamat: Son let me ask you. Had you been in my place, what would have been your first step towards bringing life back into this village?

Me: Father, I feel that the first and foremost step should be to provide the people with a roof on their heads that they can call home.

Kamat: Very rightly said son. Shelter is one of the most basic necessities of a person. To begin with, build 3 huts to shelter the people of Abujamara. You can build a hut by clicking on Build Facility->house.

(The game should wait until the player makes the huts.)

Cut Scene 2:

Kamat : Now when you build a hut, some amount of your resources are utilized for construction as you can see. For each hut that you build, 10 units of Building Material, 8 units of Tools and 8 units of Water are used. Also, some

of your manpower is employed in making the hut. Similarly, resources would be involved in every other venture we take up. You will understand as we progress.

Son : Okay, Father.

Kamat : As you can observer, when you build a Hut the Housing Indicator of the Village increases. The indicators are shown on the bottom right hand side of the screen. These indicators are a measure, of the growth and prosperity of the village.

Son : Yes, Father.

Cut Scene 3:

Kamat: Son, the next basic necessity of a village is Food. The people need food and water to survive, don't they? A well will draw water from the ground and provide fresh clean water to everybody. To build a well click on Build Facility->Well. Now you must build a well..

(After the well is built)

Cut Scene 4:

Kamat : Well done son, You are going good.

Kamat : Now to grow food, the village would need farms. Since this land has been blessed with fertile soil, we could grow any crop here. It is best to go for a healthy mix of Rice, Beans and Vegetables and Fruits. This would ensure variety and nutrition and hence a balanced diet fr the villagers.

You can go ahead with building a farm now.

Cut Scene 5:

Kamat: Well done son. Let us go back now and allow the new village to flourish. The villagers would be very happy indeed.

Reward

(A window with WFP logo as background opens up)

Great Work!!

Looking at the condition of the village and the rapid progress work done by you for the village. World Food Program has agreed to help the people for Abujamara by providing Food reserves to the village.

SECOND MISSION

Cut Scene 1:

Kamat: The children of Abujamara have no place to study. Some of them are walking 10 miles or more to come to study at your school. It is our duty to provide them easy access to education. You need to build a school for them.

(*After the School is built, as by default there would be no Books, thus they would temporarily stop down.*)

Cut Scene 2:

Kamat: Son, the Schools require books and learning material to function properly. Without that, the teachers would not be able to impart education to the children. Let us buy the books for the school from the market.

Son : Okay, Father.

(After the son buys the books from market and schools resume.)

Kamat: Son, as the schools are functional now. You can see that the number of people educated in the Manpower Distribution table has increased. Also the education indicator in the Indicator table has increased.

Son: Definitely father, it has. Now, I am able to realize the potential of education.

Kamat: Good work son.

Cut Scene 3:

Kamat: Son, as you can see a lot of people in the village are sitting idle. That is like a waste of their time and energy. You should build workshops for the people who are not involved in agriculture. The workshop would provide craftsmen, potters and metal workers a place to work and facilitate self-sufficiency in the village. Build a workshop for them to work.

Son: Definitely father.

Cut Scene 4:

Kamat: Excellent, with the young learning and the grown-ups working, the village is on the path to prosperity. But can you spot something missing in this scheme. Yes, you are right. They do not have a hospital to care for the sick. Build a hospital now.

Cut Scene 5:

Kamat: We have done all we can. You are learning fast, someday you will be capable enough to take my place.

Reward

//A window with WFP logo as background opens up

Great Work!!

Looking at the Rapid progress of the village. WFP has planned to start Food for Work program in Abujamara village.

In Food for Work program WFP involves People of the village in Development Work.

Workers are paid not with money but with food rations to build vital new infrastructure that will increase the food security of households or communities.

Third Mission: (Trading)

Scene 1:

Kamat: Son, I see that you do not seem to have enough books at school. This is all caused when trading is neglected. Let us analyze the village stocks and I will help you learn the basics of trading.

Kamat: You can see the buy/sell button in the highlighted portion in the lower panel of the screen. This provides information on the amount of every resource present in the village. When you find yourself running low on a certain resource, you should go to the market to buy more of it.

Kamat: Let us buy more books. Click on the Buy/Sell button, select books and enter the quantity in the box. Finally click the 'Buy' button to buy the books.

Scene 2:

Kamat : Excellent Work , Son.

Kamat : Son you would have noticed that the money present with the village shown in the right hand top corner, decreases when you buy any resource from the market. You must maintain a good amount of money in the village account for times of need.

Kamat : To increase money in the village account you can sell resources to the market.

Kamat: For instance, we have an excess of Building Material and since we are not doing any more construction these days, we can safely sell it in the market. Sell 500 units of Building Material now.

Scene 3:

Kamat: Good work son. This is all you need to know about trading. You need to buy the resources when you are falling short of them and sell them when there is an excess of a particular resource in your village. The prices are governed by the amount of supply in the market. Explain more here. Thus a good balance of money and resources must be maintained.

Kamat: Let us head back home now. Dinner awaits.

Fourth Mission

Scene one:

Kamat: Son, meet Sukhdev, sarpanch of Abujamara. He has come to thank us for all we did for the village.

Sukhdev: Yes, after you and your son's initial start, our village has prospered manifolds. How can I ever thank you for the wonderful work you did for my people.

Kamat: It was our pleasure, Sukhdev. If we don’t help our fellow men in need, then who will.

Sukhdev: This is your modesty, Kamat. I am really impressed with your village. It has much better infrastructure and efficient workers.

Kamat: This is because we have kept up with the technology Sukhdev. My son and I will accompany you to your village to help install better technology in buildings.

Sukhdev: Thanks a lot, Kamat. We will hold a grand feast in your honor

Scene Two:

Kamat: You must know son, technology upgrades provide better buildings with capacity to house more workers and produce more resources. Thus, they are usually helpful in increasing the prosperity of the village. Do an upgrade of the workshop to level 2. Click on the 'Upgrade Button' and then select 'Workshop' and click upgrade.

(After the son upgrades the workshop)

Kamat: Good work Son. You will notice that upgrading a facility increases its productivity. The amount of resources produced by the Workshop have increased considerably, also the workers would get better working conditions.

Son : Yes father, I can certainly notice the changes. The indicators level has also increased.

Kamat : Yes Son, upgrading a facility affects the overall prosperity of the village.

Scene 3:

Kamat : Son, now upgrade every facility type to level 2. You can also notice that information related to the upgrade is given in the upgrade window whenever you select any facility.

Kamat: When you will upgrade all the facilities, you will notice a considerable change in the indicators of the village.

Son : Okay, father.

(After all the facilities are upgraded)

Kamat: Excellent work. Let us join Sukhdev for the feast.

Reward :

The people of Abujamara are very pleased with all the work you have done for the prosperity of the village.

They have sent you the first harvest from their Farms, as a symbol of honor and respect to you. You must accept it.


FOOD FORCE
Money -: 9325
Houses
Number: 5 Level: 0
Schools
Number: 1 Level: 1
itals
ber: 2 Level: 0
shops
ber: 0 Level: 0
s
ber: 0 Level: 0
ber: 0 Level: 0
I am really impressed with your work.
Thank you, father.
But I wonder, if you are capable enough to work without my guidance now that you have learnt the basics of building a village.
Manpower D
icators
Total Population
Sheltered People
Educated People
Healthy People 50
People Fed 200
People Employed 28
Medicines 80
Books 42
Sugar 333
Salt 333
Oil 333
Health
29%
Education
6%
Training
1%
10%
52%
Setup Facility
Upgrade Facility
Buy/Sell Resources

Fifth Mission

Scene One:

Kamat: I am really impressed with your work son.

Me: Thank you, father.

Kamat: But I wonder, if you are capable enough to work without my guidance, now that you have learnt the basics of building a village.

Me: I think I am, father.

Kamat: I will be leaving the village for the next 3 months to go to your Cousin's wedding and I need someone to take care of the village. That someone is you.

Kamat: Here is your mission: Manage our village well for the next 3 months.

(In this mission we should provide the player with a lot of initially setup facilities and quite low resources and money so that it cud b a little tough for him, and if he fails anywhere, as in if at any time indicators go below the particular value, then he would be required to do the mission again)

Kamat: Do not let the indicator levels fall below 40% for the next three months.

Me: Ok Father. I will not disappoint you.

Scene 2:

(If Son completes the challenge i.e. the value of indicators don't fall below that value)

Kamat : Well done Son. It seems that you are capable of handling the village after me.

(If Son is not able to complete the mission)

A window opens with the following message

Message :

You were not able to maintain the village properly. Your indicators fell below 40%.

You must retry this level to reach the next level.


The economy is in recession. Big companies have become bankrupt, traders are losing all their money, prices of the basic commodities falling...
Ajmal, as a part of the government, it is your job to improve the economy
We are trying hard father, but the recession is here for some time. And you should prepare...

Sixth Mission

Scene one:

Kamat: Welcome Ajmal, welcome. How did you find time to visit this small village again.

Me: Welcome home bhaiyya (Elder Brother).

Ajmal: It is so good to see you again Father and you brother. All the comforts in the city are nowhere near the comfort of the home! I am so happy to be back again.

Kamat: I am glad to hear this. So finally, you are going to stay for long.

Ajmal: No father, I am afraid not. I am leaving tomorrow but I bring terrible news from the city.

Kamat: So soon... but what news troubles you Ajmal?

Ajmal: The economy is in recession. Big companies have become bankrupt; traders are losing all their money, prices of the basic commodities falling...

Kamat: Ajmal, as a part of the government, it is your job to improve the economy.

Ajmal: We are trying hard father, but the recession is here to stay for some time. And you should be prepared too...

Kamat: Prepared for what?

Ajmal: The prices will fall and trade will decrease in a few days. It could impact the village in a big way.

Kamat: Our treasury is already low due to bad trade these days, I did not know, it was due to the mistakes of the city people.

Me: I will handle it father. I will sail us through these bad times.

Kamat: I have full faith in your capabilities son. I will leave the management of the village resources to you.

Ajmal: I did not know ……..., that you have stepped into our father's shoes so soon.

Me: I have bhaiyya, and I wish to do really well.

Ajmal: Father, come with me to the city once. You will be able to understand the crisis better. Moreover, your grandchildren are eager to meet you.

Kamat: That's a good idea, it has been years since I saw them.

Ajmal: Thank you father.

Me: Bhaiyya, what do you reckon will happen in the coming days.

Ajmal: Prices of the commodities will fall. So do not try to build new things during this period and focus on trading well.

Ajmal: Smart trading will ensure that you do not lose the money in your treasury. According to my calculations, things will improve in the next year.

Ajmal: So at the end of 12 months, do not allow the indicator values to below 40%. Also, maintain atleast Rs. 5,000 In the treasury at all times.

Ajmal: Farewell brother, hope you will do well.

Scene Two :

Son : The prices of all the commodities have dropped a great deal. The resources required for proper functioning of the facilities are drying up.

Son : It is indeed a tough time for the village. I wish father had been here to guide me.

Scene 3:

(If Son completes the mission, i.e. if the indicators remain above 40% and there is // enough money in the bank even.)

Kamat : Well done Son. You have proved your capabilities once again.

Son : Thank you, father.

Reward :

Looking at the present economical conditions, the government has planned to give bailout to the companies affected by recession.

The prices of crops will rise again, and the farmers will be able to get the right value for their hard work.

Good Work!!

(If son fails to complete the mission)

A window opens with the following message

Message :

You were not able to maintain the village properly. Your indicators fell below 40% or the money in your bank is less than Rs. 5000.

You must retry this level to reach the next level.


Kamat: Son, the mansoon has deserted us. The crops are dying. Farmers believe it is the Indra god who is displeased, but you know better.
Yes father.
Kamat: They will be holding a pooja soon. But we need to do more than that.

Seventh Mission

[Arid soil in this level… less greenery around(it refers to the terrain of the ground)]

Scene one:

Farmer: Sarpanch ji, there is no water. The crops are dying. Help us!!!!

Farmer: Help us Sarpanch ji, otherwise whole village will die due to hunger.

Farmer: Is it the rain god, Indra who is displeased with us?

Kamat: No it is not the gods, but the failing monsoon folks.

Kamat: Due to recent ecological disturbances, monsoon has not come this year. But don't worry I will handle it.

Farmer: Thank you sarpanch ji. We are also holding a pooja[prayers] for Indra.

Scene two:

Kamat calls out [Name of the player]

Me: Yes father, is there anything I can do for you.

Kamat: Yes son, the monsoon has deserted us. The crops are dying. Farmers believe it is the Indra god who is displeased, but you know better.

Me: Yes father.

Kamat: They will be holding a pooja soon. But we need to do more than that.

Me: Yes Father.

Kamat : Due to lack of water, the productivity of farms have decreased. People are dying of hunger.

Kamat : Hospitals and Workshops are also not able to work properly due to shortage of water.

Kamat: We need more water reserves. Build up some wells and take good care of the crops. Do not let the nutrition indicator drop below 50% and increase the stored water level upto 5000.

Kamat: Apart from this, general level of indicators at the end of the year should be more than 40%.

Kamat: Good luck son.

Scene 3:

(If mission is completed.)

Farmer : Thank you, Sarpanchji for bringing us out from such a grave problem. Without your help, we along with our families would have died of hunger.

Kamat : Well this time it wasn't me. It's my son, *name (name of the person to whom the xo is registered),* who should be getting the credit of all this work.

Son : Thanks, father. But it was all due to your guidance and support only that I am able to serve for the prosperity of the village.

Reward:

WFP has planned to teach the farmers of your village.

They would be helping the farmers in increasing the productivity by helping them in doing proper irrigation of the farms. They would help farmers in implementing techniques like Crop Rotation, using Fertilizers etc, so that the productivity of the farms increase and the fertility of the soil remains intact.

Good Work!!

(If son fails to complete the mission)

A window opens with the following message

Message :

You were not able to maintain the village properly. You were not able to complete the task given to you.

You must retry this level to reach the next level.


FOOD FORCE
Money -: 9325
Houses
Number: 5 Level: 0
Schools
Number: 1 Level: 1
Kamat: Son, I am getting old, but I have a faint feeling that something bad is about to happen.
Why do you think so, father?
Kamat: The signs are there in the animals. Look how the cattle and the sheep are getting restless. They are the ones who know first that the Gods are angry.
Manpower D
Total Population
Sheltered People
Educated People
Healthy People 50
People Fed 200
People Employed 28
Medicines 80
Books 42
Sugar 333
Salt 333
Oil 333
Health 29%
Education 6%
Training 1%
Setup Facility
Upgrade Facility
Buy/Sell Resources

Eighth Mission[Earthquake Mission]

Scene one:

Kamat: Son, I may be getting old, but my intuition never fails me.I have a faint feeling that something bad is about to happen.

Me: Why do you think so, father?

Kamat: The signs are being displayed in the animals. Look how the cattle and the sheep are getting restless. They are the ones who know first that the Gods are angry.

(An earthquake strikes the village.

Kamat dies during the Earthquake.

Ajmal also comes back to the village after getting this news.)

Scene two :

Ajmal : Brother, the responsibility to manage the village is up to you now. You must help the people of the village in recovering from this calamity and building a life again.

Son : But bhaiyya, how would I do all this without Father's help and support.

Ajmal : Father had a vision for this village. It had taken him a lifetime to build this village. You must work to take his mission forward.

Ajmal : You must rebuild everything and get the village back on the path to progress and prosperity.

Me: Don't worry brother; I will rebuild the village to its former glory.

Mission Objective: Rebuild the village and bring the indicators to 50% within next 2 years.

Reward:

The village Panchayat has decided to select you as the next Sarpanch of the village.

Also, they have decided to make a new school in remembrance of the best Sarpanch this village had in years, your father, Kamat.

Under Review:

After this the user would be asked to connect to the Internet and submit his/her score of the game online. Functionality for the same would be provided in the game itself. Now, on the basis of the score made by the user we can generate an equivalent donation made by him to cause of WFP, i.e. donation in a form of food to the villages. But, we need to generate donations for that in some way.

One means of that could be some advertisement of a few brands when the user connects to the Internet. But, this thing can be better explained by people at WFP, in terms of their strategies for any such kind of activity.