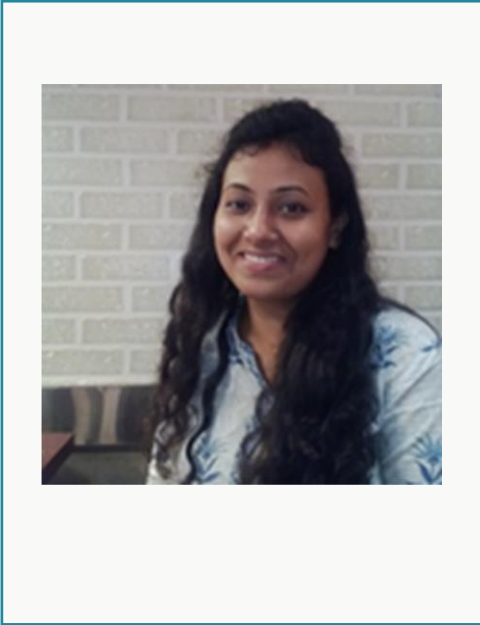


Story

Portable Water distribution is a major challenge in India during hot summer season. IoT, if applied in transmission line can bring a drastic change in overall Customer service and equipment maintenance.

Summer condition generally creates over heating of ground condition creating fissures in the pipes both underground and overhead. Lot of complaints are registered in Customer Service desk due to irregular supply of water and low volume flow transmission. IoT would help us to gauge this problem beforehand and create an alternative plan to reduce or completely negate this complaints.

IoT would be a major driving force in increasing the efficiency of Water Distribution companies/municipal bodies and Users(household/industry) would be alerted with real time updates for pre-cautionary measures in case of pre-planned outages. The data can also be used to predict future installation and optimize existing water distribution setup in accordance with growing demand.



[Sarmistha]

Assistant Engineer, KMC

“Serving over 10million people every day needs instant action even on the move. ”

About

- 28, married with 5 years of Water distribution sector exp.
- Job responsibility deserves service round the clock, I need to see one and all gets their share of water at the same time reduce wastage during transmission.
- Reduction of Customer complaint around the city and timely maintenance of transmission equipment.
- Primarily working with Sub-engineers, external Plumbing vendors and Customer Service department reporting to Municipality Senior Engineer, Water Department.

Responsibilities

- Managing water transmission in the municipal area.
- Act upon Customer complaint registered at Local Municipal bodies.
- Respond to needs in Emergency situation such as supplying water to Fire Brigade in case of fire breakout.
- Future roadmap of transmission lines construction in Municipal area.

Main Goals

- Increasing operational efficiency at granular level.
- Save time in serving registered Customer complaints
- Reduce wastage of Water during transmission and at the target destination.
- Efficient in preparing maintenance window for transmission equipment and prompt in involving vendor with this information.

Needs

- Overview of Transmission line behavior around the year at different sample location in the City.
- Real time tracking of Complaints for immediate response from Vendor at local site.
- Equipment ageing information for routine maintenance work and proper planning of outage.
- Regular outlay of supply-demand scenario at sample location site to consider it for Future roadmap.

Pain Points

- Long delay to respond any irregularities in water supply due to absence of monitoring system. Need to rely on complaints before acting on the ground.
- Equipment functionality in long distance underground transmission line is difficult to gauge and create substantial delay to find the actual faulty parts.
- Supply demand scenario is not analyzed creating disparity in distribution with faulty assumptions.
- Lack of Supply-Demand historical data.

Point of View

As an Assistant Engineer working in KMC serving over 10 million citizen on a daily basis

I need a way to get

a> an overview of Transmission condition/volume on real time basis

b> keep a tab on the Customer complaint lodged at local substations

c> Monitor ground staff/ external vendor to mobilize them as per need or during emergency

d> prepare routine contingency/ maintenance plan to keep the transmission system running

e> Analyze demand for future transmission layout

so that








a> Service remains uninterrupted reducing Customer Service effort.

b> Act promptly in the problematic areas

c> dispatch nearby located workforce to address the issue

d> inform all the stakeholders about any planned outages for precautionary measures

e>optimize future resource utilization based upon historical data consumption at various sample points.

ACTIONS	<p>Receive Customer Complaint notification from Ward 22 at morning 10 am in Municipality area regarding Water supply shortage for Girish Park area. It has been irregular since morning and affecting around 500 people in that neighborhood.</p> 	<p>Update from Ground Staff reporting one leak in underground pipeline reducing the water volume transmitted. Nearby areas are not affected with this outage. Vendor help needed to point out the leakage location.</p> 	<p>Place request to available Vendor for search and repair operation. Ask them to give a Time estimate once they identify the issue. Report back the status to Customer Service for updating the affected Consumer.</p> 	<p>Receive Time estimate from Vendor to fix the leakage. Update Customer Service with the data asking them to tell Consumer on the same.</p> 	<p>Vendor confirms back that leakage has been repaired and service can be restarted. Ground Staff asked to restart the operation and check the output. Maintain the PO invoice with time spent on activity.</p> 	<p>Get confirmation from Ground staff about the supply resume in affected areas. Informed Customer Service about the same.</p> 
MINDSET	<p>Early Monday morning there is an issue in supply. Where are the ground staffs>> Get back to Customer Service with an ETA for fix>></p>	<p>Leaked pipeline stretch over 150mts. At least we responded to the issue within 30mnts. Need to inform the nearest available Vendor.</p>	<p>Vendor was right there in the time, they would be able to solve the matter in quick time. Need to revisit the maintenance plan for pipeline of that area.</p>	<p>Estimated time is too high compared to pipeline length. Maybe other Vendor was faster on the last occurrence. Contact Ground staff asking them to monitor the situation.</p>	<p>The leakage is fixed within 6 hours from reporting. Consumer would be happy with Service>></p>	<p>Finally all is well, day's work is almost done.</p>
FEELING						
TOUCHPOINTS	<p>Customer Service Mobile Ground Staff</p>	<p>Mobile Ground Staff External Vendor</p>	<p>System Operation Customer Service Maintenance plan lookup</p>	<p>External Vendor Customer Service Ground Staff</p>	<p>External Vendor Ground Staff System Operation</p>	<p>Ground Staff Customer Service</p>