

Source Advisory Presents its first odd cast series: Smart cities, sustainability and solarization

Odd Cast - 2

This is an ode to utilities of tomorrow. Digital Utilities. Smart Utilities.

In this week itself the topic of smart utilities has come up in my conversations thrice, and if you count today, then four times. Power, telecom, broadband, water, waste, gas, healthcare, education and public transport. Everyone of them has reached a point where smarts are not a far-fetched dream but a nearing reality.

COVID-19 has made us realize that how connectivity and network can help us in the most difficult times like global pandemics, riots, wars, famines, draughts and plagues. We have seen Indian utility services suffer and with it suffered the people who needed them. Some of my colleagues said that their internet services were interrupted as the ISP didn't had enough resources to operate the transmission towers, a lot of areas had frequent blackouts due to un-manageable shift in behavior of people as everyone started working from home, the healthcare services were down as hospitals were full of patients who were anticipated to have COVID-19, transportation services went down and even emergency transportation was not very responsive, oil and gas prices dipped, education was hindered, economy went down by a almost -salaries were cut and people were laid off – Q4 GDP fell to 3.1% and the GDP growth for 2020 is estimated to be at 4.2% which will be almost 2% points lower than GDP of 2019 and will lowest in the whole decade. Also, power, water and gas utilities were not able to determine the actual consumption and hence the bills were delayed, the billing cycles elongated giving rise to working capital issues with utilities.

However, if we had smart infrastructure, like a smart power grid, a smart water grid, smart telecommunication services, smart education and healthcare, smart gas grid in place, we would have avoided a lot of damage. Suppose we had smart power grid with a lot of distributed resources, automated demand response, advanced metering infrastructure we would have avoided the unpreparedness of Modi ji's untimely Diwali grid disaster, utilities would have been able to control user loads, read meters in time, send across bills and users could have paid bills in time, thereby maintaining the power utilities run uninterrupted in times of emergency. If we had smarter telecommunication grid in place, we might have avoided interruptions in calls/ internet during office meetings while working from home, smarter telecommunication systems would have had either floating infrastructure in place and efficient distributed resources to take care of transmission towers. What do we mean by smart education, we mean e-libraries where all books and relevant study materials are available, teachers can have virtual or holographic classrooms, students can access lecture archives, testing procedures were online, use of AR and VR technology to help students visualize things better, taking them through actual history lectures, science classes or making them understand the logic behind calculus. Smarter healthcare, wherein if beds were not available for COVID-19 patients, doctors could visit patients virtually, at their homes, diagnose them with smart wearables or smart portable diagnostic devices, give them test results in minutes of processing samples taken from them. How would have smart transportation helped – smart public transportation or connected vehicles could have avoided entry in restricted COVID infested zones, where currently police officials were designated and exposed to the disease as if they were immune to it, would have allotted seats to people who were travelling keeping in mind social distancing protocols, could have taken all those poor laborers travelling to their homes on foot, without any human intervention. Keeping in mind how smarts help, lets begin developing smart

tech, to optimize resources, make everything sustain for a longer duration, make lives of everyone on earth easy. Until next time, where I will have one of my colleagues join me in the conversation and we will talk about the recent announcement on smart villages.