

SequOps

Industrial Impact :  
**Oil & Gas - up stream**

## Remote Operational capabilities for Geographically distributed assets

Energy industries such as oil and gas, renewable energy is established on a larger canvas, in remote multiple locations. Monitoring their systems remotely from a centrally accessible format makes ease of many influential changes in it.

## Remote operation of a sour gas treatment plant in the oil and gas industry in multiple locations:

Oil and gas have been a trending topic all the time with its influence towards economy. We often look at the economic fluctuations from time to time, but not much on technical aspects. We at BRT too, until we came across a few challenges from upstream in search of solutions. Upstream is where exploration and extraction of hydrocarbons by drillings wells happens.



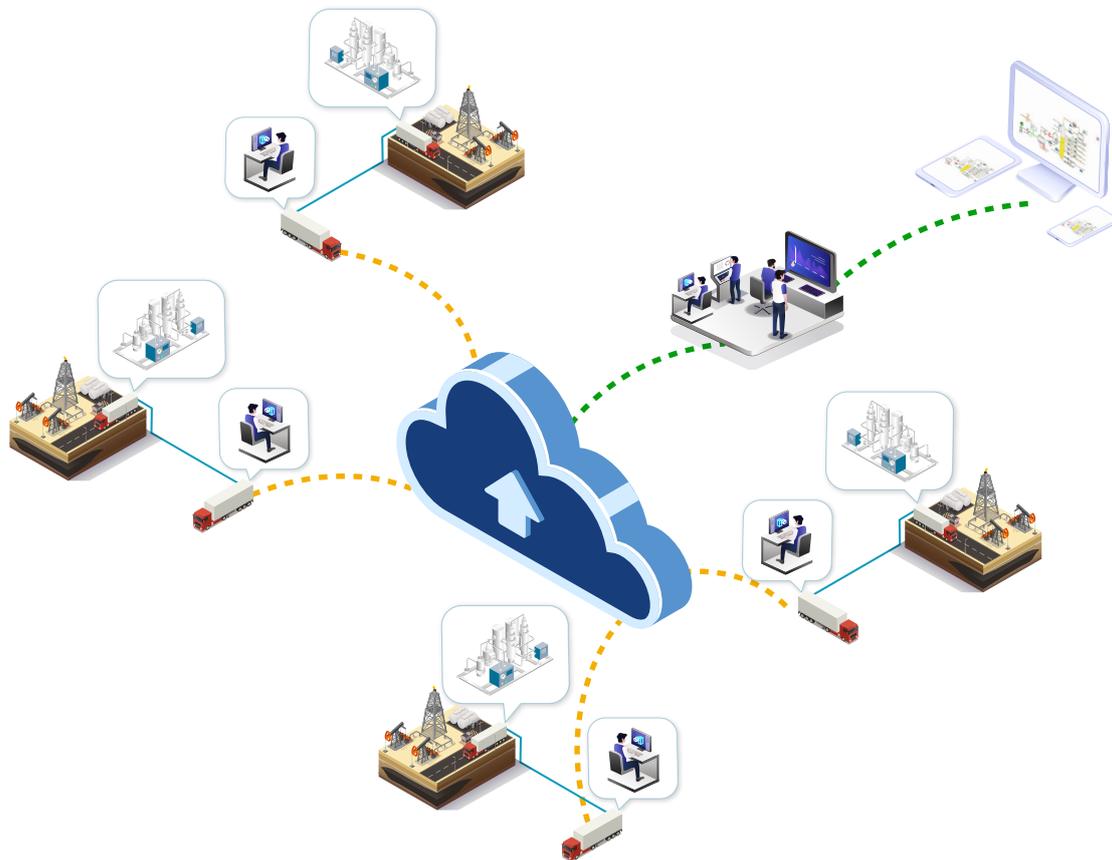
Fossil fuels underneath has lot of impurities in it, such as sulphur and many other elements. These impurities can cause corrosive effect in pipelines and is hazardous to humans. Gas sweetening is a chemical process to remove sulphides and co2. One of our clients while designing & developing an automated gas sweetening process.

We faced a challenge as it was in process on Zone 1, a hazardous and explosive atmosphere which restricts direct human intervention, time to time. It can cause decreasing effect on efficiency and productivity. Our challenges did not stop here, doing this process with remote operations at different sites made us to think of the complexity in it.

So, we started with automation of the equipment process so that it can be operated with minimal human interference in a Hazardous Zone 1 Area. We designed an automation system that could be completely monitored and controlled from a local station in a Zone 2 Area.



An IOT edge layer is also designed to be deployed in Zone 2 to enable supervisory control & monitoring from a remote location, thanks to advancement in technologies and IoT applications. These types of intelligent systems help to evaluate the data with historical ones for references, also assuring security of data. Through this system we help our client to analyse quantitative distinct levels in chemical processes and act accordingly. It helps to increase efficiency and productivity with proper processing.



Well testing operations are normally done for a specific time period and testing has to be conducted in very remote locations. Coordinating various such deployments are always crucial in managing operations of a company that is providing testing equipment in a pay per use model. Each remote automated unit has to be evaluated, analysed, remotely manage - work, health, and consumables. There is also a need for a supervised remote operational capability for such equipments. Acquired information needs to be exchanged and can be transferred to the locations from automated systems. Application helps in accuracy and reducing the struggle through the entire process.

Here, we at BRT designed an automated as well as remote operated system using the application of our product- **Sequrops**. This allows the client to operate equipments with minimal human intervention along with increased efficiency and productivity with the help of a remotely operated process. These types of automated remote operational requirements exist in other industries too.