



Case Study

Establishing Integrated Collaboration Centre for a Midstream Major

Client

Midstream O&G major in the US, leveraging a strategic footprint of assets to provide full-service logistics, and connecting resources to end-user markets. The client has 50+ Gas Processing Plants spread across the US, mostly in remote areas, and connected by many thousands of miles of pipelines, making it difficult for the client to equip each plant with experienced operators. An ideal situation is not only to have visibility, but also control all plant operations remotely.

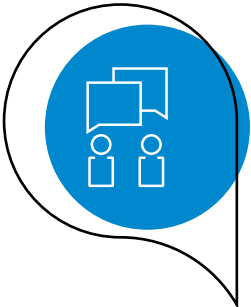
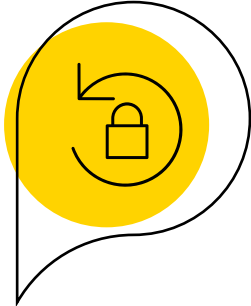
Challenges

With a diverse existing setup, being governed by heterogeneous entities, disparate systems, manual interventions, and lack of collaboration across plants and assets, it was extremely difficult to have visibility and run efficient operations at the Enterprise level. Specifically:



Gas plant's data scientists were unable to help operators at plant levels drive key operational insights, due to their inability in accessing operational data siloed at the plant level.

Optimal levels of Ethane and Propane recoveries in a majority of plants were unattainable.

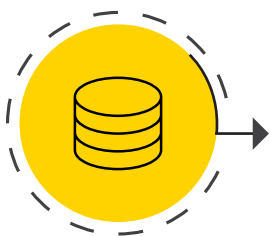


Lack of communication with HQ also meant plants defining their own operational benchmarks, based on historical performance, rather than calibrating against sum of all equipment performance.

LTIMindtree Solution

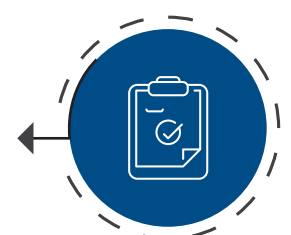
- LTIMindtree partnered with the customer to develop and deploy an integrated collaboration centre solution-based on OSI-PI platform.
- The solution helped the client to remotely observe and optimize different units within the Gas Plant Operations, including Cryogenic Units, Stabilizer Units, Amine Units, and Inlet Liquid Handling Units, across all 50+ Plants.
- LTIMindtree was engaged in POC evaluation, solution architecture and strategy, asset framework creation and mapping on OSI-PI, pilot deployment, and roll-out.
- LTIMindtree implemented a centralized enterprise historian, which would act as a system of record for all historical and real-time operational data to include all parameters (600,000 OSI-PI Tags) for plant operations, consisting of 400,000 instrumented tags collected from four SCADA historians, and 50+ DCS systems.
- LTIMindtree worked very closely with data scientists to templatize analytics that would calculate KPIs like Ethane and Propane recoveries, and real-time margin calculations, which can be applied across all gas plants.
- LTIMindtree helped the client integrate real-time historian OSI-PI with the simulation software VMGSim to simulate data for each temperature and pressure sensor in the gas plant. This solution enabled a comparison between real-time sensor reading vs. optimal sensor reading, enabling operators to calibrate and achieve optimal operating conditions.
- LTIMindtree leveraged OSIsoft's visualization platform PI-Vision to develop plant screens, which act as a single pane of glass for the most important plant parameters, covering plant operations, real-time visibility into plant performance (including sub-units performance of plant), simulated benchmarks comparison, relevant financial metrics (financial impact of as-is/to-be operations), and KPIs for client leadership.

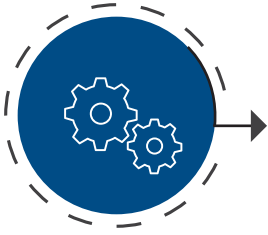
Business Benefits



ICC helped data scientists guide inexperienced plant operators to better perform their daily operations.

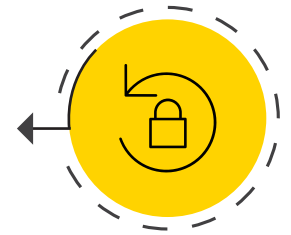
Templatized analytics enabled the client to rank all the plants on the same criteria for evaluating performance.





Leveraging optimal operating conditions helped optimize gas production volumes across all plants – approximate \$10-15 Mn saved.

2-5% improved recoveries across all plants.



LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 84,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree – a Larsen & Toubro Group company – combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>