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## **ABSTRACT**

# Digitalization and Analyzation

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Romet Limited is a leading designer and manufacturer of positive displacement rotary gas meters, electronic volume correctors, and auxiliary equipment for the natural gas industry.

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## Current Situation

Maintaining equipment in the field is a crucial aspect of any successful operation. Whether it be local gas distribution or the transportation of gas, equipment that is not properly maintained can lead to costly downtime, inaccurate billing, and even safety hazards. Field maintenance of equipment requires driving to each location increasing costs.

Regular field maintenance checks are costly, require procedures to be repeated, and in most cases unnecessary. Until recently this was the only method to ensure that all measurement equipment is functioning properly and any potential issues are addressed before they become major problems. This includes checking regulators, relief valves, and meters, for wear and tear and replacing or repairing equipment IF needed.

In addition to regular maintenance checks, it is important to train personnel on the proper use and care of equipment. This includes training on proper troubleshooting techniques, identifying malfunctioning equipment without proper data, as well as calibrating tools and maintaining tools after each use.

Properly maintaining equipment in the field not only ensures its longevity but also increases the efficiency and measurement of gas. It also promotes a safe environment for all involved in the operation. Therefore, it is essential to make sure that all necessary steps are taken to maintain equipment in the field at all times.

In addition to field visits the gas operator has many manual back-office operations, across various departments, with the data collected. Manual back-office operations refer to the method of managing administrative tasks in an organization. These tasks include data entry, record keeping, billing, determining rate classes, transportation gas daily scheduled quantities (DSQs), and other duties that support the day-to-day operations of a company. Manual back-office operations can also be time-consuming and prone to errors.

Digitized technology will revolutionize many aspects of the gas business, and manual back-office operations will be more efficient and allow personnel to perform other duties that support the organization. Transforming data from the field into automated digital data allows the organization to operate more efficiently by reducing operating and maintenance expenses.

## Digital Transformation

What is digital transformation? Digital transformation is the process of integrating digital technology into all departments of the gas business, resulting in fundamental changes to how the departments operate and deliver value to the organization. The use of digital technologies will lead to an increase in the pace of change and disruption across the gas industry. Companies that fail to adapt to digital transformation, risk becoming irrelevant or obsolete.

The benefits of digital transformation are numerous and include increased efficiency, improved customer experience, and enhanced competitiveness. By leveraging data analytics, communication, and automation, businesses can streamline processes, reduce costs, and gain insights into their operations and customer behavior.

Digitized data reduces training technicians to troubleshoot issues in the field. These issues can be discovered and reported by digitizing the data. In addition, regular field visits to maintain equipment can be eliminated by digitized data reducing operating and maintenance expenses.

Digital transformation does not need significant investment in technology infrastructure. Today's technology allows gas operators to use existing communication infrastructure and assets. This allows the organization to focus on the digital data it produces as well as a cultural shift toward embracing new ways of working.

## Results

Gas, whether natural gas, hydrogen, renewable natural gas, or mixed gas is a vital resource that powers many industries and homes across the world. However, managing this resource effectively requires accurate and timely data analysis. Currently, the natural gas industry has the opportunity to undergo a digital transformation of data, which will revolutionize how companies extract, transport, and distribute natural gas.

This paper will present the various ways in which digital technology is transforming the natural gas industry. First, it will discuss how monitoring systems have improved safety and efficiency in gas operations. Second, it will explore how digital measurement technology is transforming multiple departments across the organization.

Real use cases of the digital transformation of digital data will highlight the paper showing real-world examples of the power of digitized data transforming the industry.

Moreover, this paper will highlight how data analytics have facilitated better decision-making by providing insights into customer behavior and market trends.

## Summary/Conclusions

This paper demonstrates that the digital transformation of data will significantly impact the natural gas industry by improving safety standards, reducing costs, increasing efficiency, and enhancing customer satisfaction.

Digital transformation of reliable data is essential for gas businesses looking to remain competitive in today's rapidly evolving landscape.