

Connecting Firstgas workers to support accuracy and agility in asset management

About Firstgas

Firstgas is New Zealand's largest gas network of high-pressure transmission pipeline (2,500 km's) and distribution pipeline (4,800 km's) in the North Island. The network safely connects over 60,000 customers with natural gas.

Maintaining situational awareness of such a large distributed network and frontline workforce, in often very remote and disconnected environments, is a critical challenge for Firstgas to maintain regulatory compliance, asset performance and operational efficiency. Firstgas recognised that a reliance on manual field processes was a constraint and risk in relation to this objective.

The Opportunity

In line with Firstgas strong commitment to continuous improvement, employee safety, risk mitigation, and future proofing the operation, Firstgas sought to digitally transform processes related to asset based data capture, transmission, processing and communication.

Zaptic worked with Elite Energy Consultants, to implement a solution for Firstgas with integrations to the EnergySys platform.



Why Zaptic?

Zaptic was chosen because its **connected worker** platform provides:

A single pane of glass for technicians to capture data, follow guidance and collaborate on field tasks safely, productively and accurately.

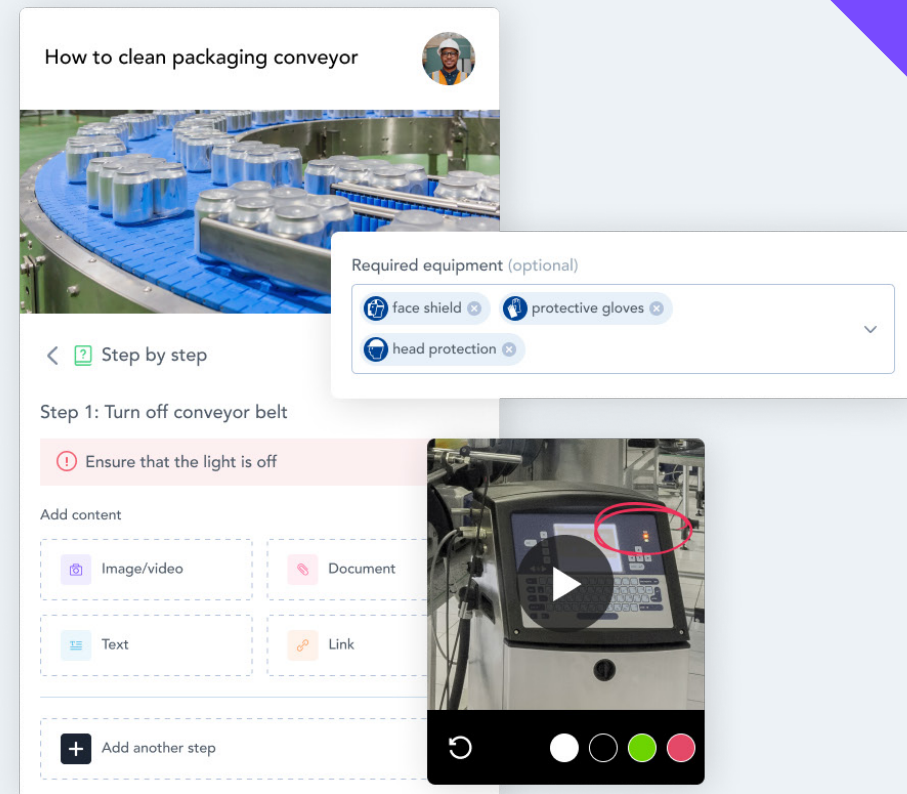
An intuitive no code toolkit for the digitisation of any field workflow and work instruction creation.

An easy integration to core systems, such as asset performance management (APM) and carbon accounting systems like EnergySys.

Challenges and Outcomes – Digitising Metering Validation

The first use case to digitise was the Metering Validation capability. This capability is crucial for the Gas Transmission business as it allows Firstgas to accurately determine the receipt and delivery quantities of gas under required regulations and commercial codes.

Before Zaptic, this task was performed by people who manually complete a physical form and then send the form into the Scheduling Team to be processed, resulting in a number of challenges.



Challenge 1: Manual Data Gathering

Firstgas manual data gathering is now supported by an easily configured and maintained Zaptic solution which:

Provides technicians with the correct form to complete without relying on memory.

Guides them through completion of the required fields at each site without relying on memory. Entered inputs like reading type, location, asset type etc trigger sub processes to ensure relevant data inputs are captured. There are just over 25 different scenarios in which the forms can be completed.

Download readings from the equipment.

Prompts the technician regarding missing or incorrect data by applying a library of upstream CSG data validation rules applied to field, facilities, or commercial datasets.

Zaptic's Solution:

Addresses issues related to missing and incorrect data being submitted, and make adjustments to forms instantly whilst ensuring that only one version of the form is being used in the field.

Zaptic also provides the ability to capture images, videos and audio whilst in the field validated by asset characteristics. This reduces the errors and difficulties in interpreting handwriting, leaving less room for error and improving accuracy and completeness of data.

Rules were configured and focused the organisation on data validation by exception and variable tolerance levels. As the organisation learns to manage these rules, the organisation can handle and manage more rules due to the confidence gained by using the validations implemented.

Challenge 2: Inefficient and Inaccurate Information Being Transferred Back to the Scheduling and Asset Management Teams

Zaptic's Solution:

The data gathered is now instantly transferred back to the Scheduling and Asset Management teams as soon as a form is completed, and the device used to capture the information re-enters an area that has internet service. The information is auto-saved until the internet is available.

They no longer have to physically deliver the information gathered and send photos or scanned information separately in emails, all is achieved within Zaptic directly.

In addition, data gathering issues related to receipt delays and large back office efforts associated with managing and monitoring submissions have been minimised to allow personnel to spend that time on other higher value added activities.

Challenge 3: Data Review

The original data review process includes a person searching for errors prior to the data being submitted for further use in the Metering Validation System and the Asset Management System. Discovery of error meant additional collaboration with Field Technicians with the potential of the technician having to travel back to site. As well, digital information is often printed and physically stored.

Zaptic's Solution:

Enables Firstgas to easily set up validation rules to minimise the need to re-run the data gathering efforts to correct data entry mistakes.

Removes the need to print off and store digital information as it is stored in the application itself and can be easily retrieved if and/or when needed.

Results

Firstgas now has a best-in-class technical platform which:

Provides a single version of the truth for all manually gathered data.

Supports data validation by exception.

Automates and streamlines mundane and repetitive activities and thus creates space for resources to focus on new value-added improvement efforts.

The Zaptic application, along with the EnergySys integration, have become an integral process to ensure that Firstgas Scheduling and Management teams get credible and reliable information in a timely manner.

Furthermore, the possession of a flexible connected worker platform offers Firstgas the ability to digitise a variety of other use cases – from routine rounds and health & safety observations through to maintenance procedures and work orders, all within the same User Interface / “pane of glass” for workers.

