

Informed Decisions and SkyData partner to deliver greater efficiencies for Pharmaceutical Manufacturing Laboratories

A detailed use case example of the powerful enhanced efficiencies delivered to a business operating in the Pharmaceutical Manufacturing arena.

BUSINESS CHALLENGES

Manufacturing in the pharmaceutical industry in this country is strictly governed by the South African Health Products Regulatory Authority (SAHPRA) with the Medicines Control Council (MCC) applying standards as laid down by the Medicines and Related Substances Act.

Therefore, the manufacturing process is carefully managed and monitored throughout. Over and above hygiene requirements there is also a key focus on environmental conditions such as temperature and humidity during the production life cycle.

Cross contamination between production areas is a serious risk factor that requires intense scrutiny on an ongoing basis.

Storage and sampling conditions are also crucial to the overall production process and consist of the following:



Climate Control Chambers

- o High Temp/Humidity
- o Low Temp/Humidity



Sample Storage

(Strict storage requirements)

The compilation of digital records of environmental conditions, with audit trail capabilities, pose significant challenges for laboratories operating in this sector. Such audits are mandatory to avoid operator capturing errors due to manual processes and provide qualified reports on production quality.

PROFILE & BUSINESS GOAL

The laboratories in this use case study operate in the pharmaceutical manufacturing industry and produce a number of products from aerosols to tablets. Although the company has a proprietary range of products it also contracts to pack for other organisations in the arena.



THE SOLUTION IMPLEMENTED

Informed Decisions deployed a long-range wireless network with an array of sensors that operate throughout the manufacturing and storage environments. Data is collected on a fifteen-minute cycle and presented on a custom developed platform, designed in partnership with Argility and based on its proprietary SkyData platform.

The solution consists of a high-availability network device that creates a long-range private LoRa™ network.

More than sixty individual manufacturing environments are monitored by medical industry approved sensor sets.

Dashboards for the entire plant were created on the Skydata platform allowing real-time visibility of the factors being monitored.

Triggers and alerts are setup on Skydata to not only display but to also email/SMS the responsible individuals for immediate resolution.



THE BUSINESS BENEFITS ACHIEVED

- Continuous real-time digital monitoring and automated alarms on a visible dashboard or via email/SMS when manufacturing rooms exceed predefined parameters on:
 - Temperature
 - Differential pressure
 - Humidity
 - Door contacts
 - Climate control chambers
- Immediate notification of critical events facilitating instantaneous response and rectification of any discrepancies.
- Avoidance of production quality issues.
- Ability to provide an audit trail and proof of quality processes.
- Capability to prove that best manufacturing processes have been followed.
- Reduction of rework/write-off of materials due to environmental issues.
- Elimination of manual readings reducing staff time impact.
- Minimisation of expensive annual calibration processes.
- Increased efficiency and transparency with dashboard views and real-time alerts.
- Audit trail capabilities that would otherwise be expensive and complex.
- Analytics available for proactive addressing of issues in the facilities such as heating, ventilation, and air conditioning (HVAC).

ULTIMATELY THE SYSTEM HAS:



Saved Time



**Prevented
Stock Losses**



**Enhanced
Customer Trust**



**Increased
Productivity**

all of which in turn leads to a competitive advantage.

For further information: www.argility.com | <http://informedec.com>

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