



| Vaccine Manufacturer

Case Study

Client

Global leader in vaccine manufacturing

Founded in 1966, the Client is one of the largest manufacturers of DTP (Diphtheria, Tetanus and Pertussis) and MMR (Measles, Mumps and Rubella) group of vaccines. Vaccines manufactured by the Client are used across 140 countries worldwide (every two in three children).

Effective production processes are critical to its growth and improving the affordability of vaccine.

Challenge

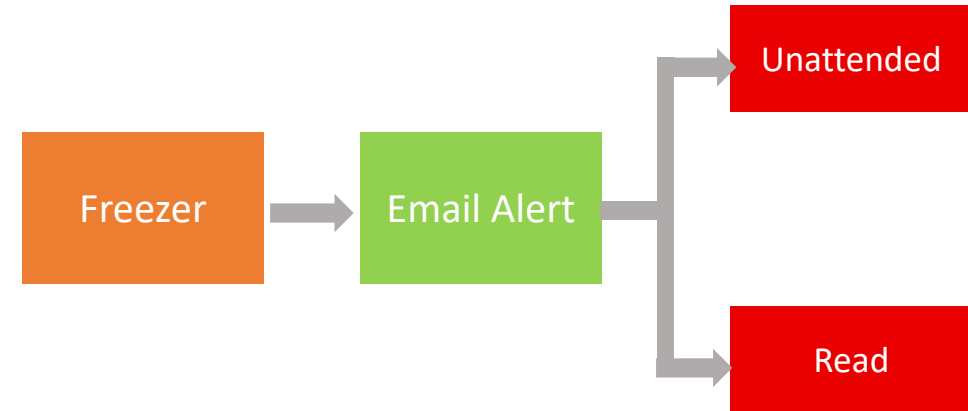
Production losses caused due to slip-ups in alert systems

Precise temperature control at various stages in the process is critical in case vaccine manufacturing and distribution. The Client used an email system to alert users about temperature variation in Deep Freezer facilities that could adversely affect the end-product.

However, the system left many challenges unresolved:

Challenge

- Email alerts did not guarantee immediate attention of users
- Substantial time-lag between alert and action
- Relatively less skilled personnel did not use emails
- Compliance lapses



Solution

A fail-safe system assuring users being alerted in run-time

MacHavior Pharma product from TechMetro assured users being proactively alerted in run-time through an SMS in addition to the email alert. SMS guarantees immediate attention of the concerned users and prompted quick action for problem resolution.

MacHavior Pharma operates in synchronization with deep freezer PLCs and Data Loggers to extract the alarms and to provide seamless experience for the end user.

Solution

MacHavior Pharma scans the configured channels of the data loggers for the alarms, compare those with the various rules in the **MacHavior Pharma** rule engine. Based on the results returned by the rule engine, **MacHavior Pharma** send the pre configured messages to the user groups. **MacHavior Pharma** has capability to escalate the messages to the next user group if the problem is unsolved.

The product is fully capable and flexible to accommodate the changes in the data logger channel configurations, SMS text messages, user work shifts and user groups.

Result

Minimized potential risks and occurrence of in-process losses

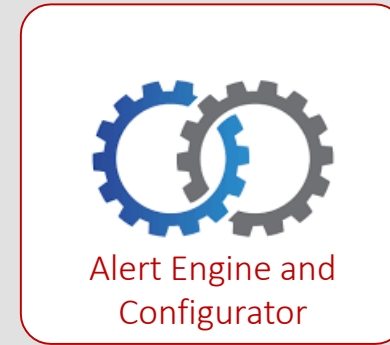
- Reduced time to respond with timely alerts for every critical situation across the organizational hierarchy
- Improved Data Logger and PLCs effectiveness with better monitoring
- Enhanced resource utilization with effective monitoring mechanism
- Elimination of time-lags with dual alert system and escalation matrix
- Revoked compliance lapses with a fail-safe alert system in action

An intelligent and incisive solution, quickly activated

MacHavior team clearly separates the unresolved problems from clients' existing systems and accurately mapped the requirements in the first go. A first time right configuration ensured quick buy-in for the product from the users. Quick activation of the product (within 2 hours) transformed into immediate impact and results.

Block Diagram

Data Loggers 1 - n



SMS and email
notifications



Escalation matrix



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Data logger channel scan for alerts

SMS and email notifications



Eases 21 CFR Part 11 compliance

Escalation matrix



Better control on quality



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