

Bioprocessing Pioneer Enhances Efficiency and Profitability Through Strategic Solution



Client Overview

Labcyte, acquired by Beckman-Coulter, specializes in manufacturing OEM equipment for pharmaceutical companies, including the Echo system for dispensing nanoliter droplets. This technology finds applications in dispensing accurate amounts of active ingredients, DNA testing, live cell culture, and molecular biology, as well as in non-pharmaceutical fields like nanotechnology.

The Problem

Labcyte faced several challenges with its first-generation Echo system:



High revenue generation but low profitability due to licensing fees and significant downtime.



Limited control over proprietary technologies leads to high maintenance costs.



Lack of expertise in control software development.

The Solution

Bluehatsoft proposed and implemented a solution focusing on the following:

- ✓ Utilizing open-source technologies for non-vital components to reduce licensing fees and increase support and security.
- ✓ Employing AMP (Asymmetric Multi-Processing) architecture to separate control and data planes, enhancing performance and reliability.
- ✓ Introducing USB-based field upgrades with automatic rollback and detailed logging to streamline maintenance and upgrades.

Business Benefits

Labcyte's adoption of Echo2 led to:

- ✓ Reduced hardware and software costs, resulting in higher profitability.
- ✓ Elimination of software licensing fees, enhancing cost-effectiveness.
- ✓ Improved security and reliability with open-source solutions.
- ✓ Reduced Field Application Engineer (FAE) engagement time for upgrades, enhancing operational efficiency.