

NEW LABORATORY SYSTEM INCREASES PROFITS

Northwest Arkansas Pathology is a large, sophisticated community pathology group with laboratories in multiple hospitals and surgery centers. The company works directly with oncologists and surgeons to provide real-time testing of tissue while surgery is being performed to ensure that tumors and cancerous growths have been completely removed. They also provide initial diagnoses of cancerous tissues and facilitate more advanced molecular testing as needed.




The Challenge

The laboratory systems at Northwest Arkansas Pathology were becoming increasingly problematic. The company was using four different systems for their laboratory information management system (LIMS), histology workflow management, billing, and patient documentation archives. The problems of working with multiple independent systems was compounded when the vendors of both their LIMS and histology workflow system discontinued support, which necessitated the use of more expensive and less reliable third party support services.

In addition, it was difficult to add functionality and upgrades to these older, less flexible systems, which inhibited the company's ability to expand into new types of testing services. Their system also lacked a customer portal, which decreased operational efficiency for both the laboratory and their clients, putting the company at a competitive disadvantage. These problems were becoming increasingly acute for Northwest Arkansas Pathology as system outages became more frequent, causing the staff to manually manage the workflow during these periods.

The company needed a LIMS that could address all of these problems, as well as integrate with their new billing service and with all of their satellite laboratories and clients. The new system also needed to be installed without disrupting work on the hundreds of thousands of cases that flowed through their labs each year.

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The Technossus Solution



Helix, a proprietary LIMS offered by Technossus, exceeded their requirements.

With the installation of Helix, Northwest Arkansas Pathology's entire testing services were moved onto a single system with a powerful workflow management and patient-centric document management, eliminating multiple manual steps throughout the testing process. Because Helix was designed to interface with other systems, it was easy for Technossus to integrate the LIMS with Telcor, the new billing provider for Northwest Arkansas Pathology, which eliminated additional manual labor. The new LIMS includes a customer portal which allows the company to integrate their system with all of their hospital clients. It also features a "Send-Out Module" which manages the interface with laboratories that do more advanced testing on the pathology samples, providing a seamless, end-to-end management of the entire process, regardless of where the testing is performed.

The Result

The new LIMS installed by the Technossus team offers Northwest Arkansas Pathology the opportunity to substantially increase profit margins in five areas:

- Licensing fees are reduced by replacing three lab systems with one higher-performing LIMS.
- Support costs are greatly reduced because the new, more robust LIMS is easier to maintain.
- By integrating the LIMS with their billing company, invoicing costs are reduced and the company can receive payments from clients more quickly, which increases cash flow.
- Manual labor can be eliminated as a result of the standardized integration with systems at all their facilities and client hospitals.
- Greater testing throughput can be achieved without a proportionate increase in staff.

Another benefit of the new LIMS is the improved quality of service that can be provide to clients. The customer portal makes it easier to exchange data with clients and the patient-centric document management allows all of the information pertaining to a given patient to be directly accessed from the new LIMS. The Helix system also allows Northwest Arkansas Pathology to add newer, cutting-edge technologies and tests that their older system couldn't incorporate, which significantly expands the company's future business opportunities.

\$3.4B

Estimated current size of tissue diagnostics market

19M

Forecasted number of new cancer cases diagnosed each year by 2025

3B

Increase in diagnostics test enabled by the Internet of Things over the next 5 years