



# TBCConsulting

TECHNICAL AND BUSINESS CONSULTING, LLC

How TBCConsulting  
jumpstarted a  
biomedical lab's IT  
infrastructure from  
scratch.

In record time.

Client Case Study

## About the Biomedical Laboratory

A biomedical diagnostic laboratory (“Biomedical Lab”) engaged a team of clinical experts and academic researchers to launch a powerful and innovative research, development, and diagnostic laboratory. Biomedical Lab devised non-invasive, saliva-based testing protocols that provide significant advantages over blood testing; namely, encouraging patients to submit samples without invasive collection procedures. With precision diagnostics in hand, doctors can implement targeted treatment to achieve more positive patient care outcomes. In addition to immediately addressing the pandemic crisis with reliable and accurate COVID-19 testing, Biomedical Lab is future-focused on saliva-based biopsy and molecular diagnostics. In partnership with a nearby university, Biomedical Lab invests in comprehensive biomedical research with high-tech labs and IT infrastructure that allows clinicians and technicians to access and communicate cutting-edge data in a clean, secure, and compliant environment. With the investments in diagnostic research, Biomedical Lab expects to engage with fellow university research partners to uncover precision diagnostic testing protocols that will change how cancers and viral contagions are detected and diagnosed.

### The Challenge

As an emerging biomedical company, Biomedical Lab was looking for a managed service provider who could spin up complete IT operations within a sensitive time frame to secure investment funding from an innovation fund at a nearby university. Biomedical Lab needed a turnkey, HIPAA-compliant, and cloud-based IT solution to initiate (and sustain) laboratory operations.

With a Lab Management System (LMS) at the core of the business, Biomedical Lab needed:

- a standardized, cloud-based network for seamless operations
- secure data back up to protect sensitive data and proprietary research
- limited latency and connectivity issues
- remote access capabilities
- onboarding/offboarding protocols
- ongoing IT support and management

Each of these components was equally critical to orchestrating laboratory operations.

### The Solution

Biomedical Lab needed an IT foundation, network, internet, systems, controls, and IT oversight to launch business operations. So how do you get a turnkey, comprehensive IT infrastructure built in record time? By using an MSP like TBC Consulting to deploy and remotely manage all of the technical minutia related to configuration, server management, secure data storage, and data backup capabilities - all centrally managed within a cloud-based infrastructure. TBC was able to deploy fully functional IT operations with end-to-end business coverage quickly.

Biomedical Lab's executive stakeholders ordered an internet circuit, and TBC customized a suite of targeted solutions to meet their business needs. All the services required for the day-day operations – email, SharePoint, Teams, chat, conferencing, massive storage with OneDrive – were made available for users through that simple internet connection.

One core deliverable was creating a robust and secure environment to protect sensitive data and workloads within Biomedical Lab's LMS. Microsoft 365 application dashboards ensure that laboratory operations and data shares are HIPAA-compliant. Biomedical Lab retains ownership of the Microsoft 365 tenants and TBC oversees the management responsibility.

The entire system is cloud-managed – bringing 100% end-to-end visibility and support for all configured devices and networks that control critical infrastructure. Centralized management of every system and every endpoint verifies security policies and authentication procedures for each user account. With on-site network gear and a wired internet connection, latency and connectivity issues are minimal. By controlling access to the network, users can consume only the services verified by their role, offering another layer of protection for proprietary data.

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The biomedical lab came to us with nothing but a new office building. The client told us that they needed everything: network, internet, systems, controls, and IT management. Their objective was to get it all up and running very fast, to meet the opening deadline.

- Eric Marshall, Solutions Architect

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## The Results

Biomedical Lab launched to address the immediate need for non-invasive COVID-19 testing while simultaneously delivering its long-term goals to develop innovative collection techniques and diagnostics for cancer screenings.

Biomedical Lab became fully operational in record time without the stress and frustration of dealing with multiple IT service vendors. Once the office and laboratory spaces were ready, and cabling was installed to maximize technical capabilities, the lab was complete.

TBC orchestrated the logistical planning, implementation, and technical installation to ensure a secure, compliant, and comprehensive IT infrastructure. The successful standup of Biomedical Lab's IT infrastructure delivered the "proof of operations" necessary for Biomedical Lab to secure funding for COVID-19 testing, as well as for research and development for saliva-based cancer and contagion screening.

Proprietary research and critical data are protected and backed up through TBC's 3-2-1 backup protocols and compliance requirements enforced by alerting dashboards. Not only can Biomedical Lab properly process, store, and analyze critical research data, but there is remote workforce management and data backup and protection, as well. Biomedical Lab can provide seamless onboarding of additional laboratory technicians, and just as quickly de-provision offboarded users to protect sensitive data.

TBC's cloud management of all IT solutions allowed Biomedical Lab to immediately engage in a high-traffic, high-visibility space without the encumbrances of piece-meal IT products and services.



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We quickly asserted a trust relationship with the client. We gave them a vision and outlined the path forward so that they were able to achieve their IT operational requirements in record time. The lab is now well-positioned for future growth and TBC will continue in its role as trusted IT partner.

-Jim Nedved, Director of Service Delivery

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