

ENHANCING CYBERSECURITY COMPLIANCE IN LABORATORY DIAGNOSTICS INSTRUMENTS

Overview

TFS Specialty Diagnostic Group is a global leader in developing and commercializing laboratory diagnostics instruments for blood-based testing, focusing on allergies and immune diseases. These instruments are equipped with proprietary application software to guide laboratory technicians in conducting and interpreting tests efficiently. However, concerns have arisen regarding potential vulnerabilities and security risks associated with the deployed software, prompting TFS to align its products with international cybersecurity standards such as ISO/IEC 27001, NIST 800, and HIPAA.

Customer Name

Thermo Fisher Scientific (TFS)

Cyient's Role

Cyient plays a pivotal role in implementing cybersecurity solutions and enhancing compliance through its DAP model.

Tools/Framework Used

NIST 800-30, ISO 27001, NIST 800-53

The Challenges

The existing system relies on a standard Windows 10 Personal Computer (PC) external to the diagnostic devices for executing the proprietary application software. While this setup meets functional requirements, it poses security risks due to the increasing sophistication of cyber threats, including ransomware attacks. TFS faces the challenge of ensuring the integrity and security of customer data while aligning its products with stringent cybersecurity standards.

Our Solution

To address these challenges, Cyient proposed the implementation of its DAP (Discover Analysis and Playback) model, which integrates principles from the CMMi maturity model with compliance frameworks such as ISO 27001, NIST 800, HIPAA, and PCI-DSS.



Discovery:

Cyient conducts a comprehensive assessment of TFS's current workflow, including application configurations, interviews with stakeholders, and documentation reviews. This assessment encompasses areas such as password management, access controls, firewall configurations, patching processes, and third-party system access.



Analysis:

Using the insights gathered during the discovery phase, Cyient evaluates TFS's cybersecurity posture against predefined maturity levels. This analysis identifies areas of vulnerability and assesses the effectiveness of existing security measures.



Playback:

Cyient provides TFS with actionable recommendations to address identified vulnerabilities and enhance cybersecurity compliance. These recommendations encompass changes to application configurations, deployment processes, management practices, and the adoption of hardening standards. Cyient also proposes the implementation of tools for tracking vulnerabilities and managing risks effectively.

Achievements

Enhanced Compliance: TFS aligns with global cybersecurity standards, boosting customer trust and meeting regulatory demands.

Risk Mitigation: Vulnerabilities are identified and addressed, reducing the risk of cyber threats and data breaches.

Efficiency Gains: Streamlined workflows lead to improved productivity and reduced downtime.

Future Preparedness: TFS is poised for ISO 27001 certification and is equipped to adapt to evolving cybersecurity challenges.



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We engaged Cyient to support us in evaluating, benchmarking, and improving our Service IT ecosystems. The Cyient team took a proactive consultative approach, quickly assimilating our business and customer needs and responded to our super sporty timelines by standing up an international team to work at pace in jointly defining the strategy, roadmap and the what and how to address both our business and customer pain points.

With the benefit of hindsight, I just wish we had brought Cyient on board sooner!

Stephen Hodson,
Senior Director, Global Services,
ImmunoDiagnostics, Thermo Fisher Scientific

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North America Headquarters

USA

T: +1 860 528 5430

Europe, Middle East, and Africa Headquarters

UK

T: +44 118 3043720

Asia Pacific Headquarters

Australia

T: +61 3 8605 4815

Global Headquarters

Hyderabad

T: +91 40 6764 1000

