Cognizant® Lab Insights Solution

How to transform lab operations using data-driven decisions, preserve legacy investments and simplify the digital journey from manual operations to a connected lab.

Bridging the gap between legacy systems, connected tools and data-driven operations

Drug development companies aspire to reduce maintenance costs and downtime and drive to better utilization of lab equipment. Despite being on the cutting edge of science, most labs struggle to enable legacy systems to work effectively with emerging connected equipment and a variety of digital technologies.

Cognizant® Lab Insights Solution provides an end-to-end approach that enables labs to quickly set up an intelligent, connected "lab of the future" environment. The solution foundation is a software-as-a-service (SaaS) digital lab management application that enables scientific labs to centrally collect and analyze data, from often disparate lab equipment, in operation. The platform uses an internet of things (IoT) architecture and advanced analytics, designed to promote process and maintenance optimization.

However, not all lab equipment is digital-ready. In these instances, we offer a Lab Readiness Assessment in which experts from our Connected Products team assess your existing environment and provide an IoT instrumentation recommendation based upon the goals of the lab. Then, our Lab Instrument Connection Services experts will work with you to ensure that the procurement and installation of IoT instrumentation will enable the transition to an integrated digital view of equipment.

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Assess	Connect	Digitize
Cognizant Lab Readiness Assessment	**Cognizant Lab Instrument Connection Services**	**Cognizant Lab Insights Application**
Lab equipment categorization, segmentation and data sampling	Data mapping, IoT instrumentation procurement and installation support services	SaaS application set up and data flow testing
2 - 4 weeks*	**4 - 10 weeks***	**1 week***

*Typical engagement time. Time may vary based upon individual lab requirements.

Cognizant Lab Insights Solution—a fast-track to a connected lab

Our "start where you are" approach will meet your lab no matter where it is on the path to digital maturity and get digital lab operations up and running in a focused, cost-effective manner.

Getting your lab digital ready with a focused approach to connect instruments

Assess >> 2 – 4 weeks

In the Assess phase, our team will visit your site to understand the goals of your lab operations and conduct a comprehensive Lab Readiness Assessment that will provide a roadmap for IoT lab equipment instrumentation, including:

- Primary drivers and trackable outcomes for connecting lab equipment
- The variety and complexity of listed equipment
- The optimal functional and technical architecture for connected lab operations
- Lab IT and infrastructure integration maps
- Digital services mapping to fit connected lab workflows and meet your needs
- Lab equipment categorized and segmented by type and mapped to an IoT instrumentation device
- Data types cataloged and mapped
- Map sensing and instrumentation needs to connect and digitize your lab

Connect >> 4 – 10 weeks

In the Connect phase, we will work with your sourcing team to ensure that the IoT instrumentation utilities for each equipment and data type are procured and assembled to the specifications specified in the Lab Readiness

Assessment recommendation.

Our Connected Products team will then partner with end-mile operators to close the service loop, including:

- Retrofitting eligible, non-connected equipment with chosen sensors
- Providing Wi-Fi/Bluetooth dongles, and applications on PCs that typically run much of this equipment.
- Implementing digital field services training for your lab service personnel and liaising with equipment OEM service personnel

Transforming lab operations using data-driven insights with Cognizant Lab Insights Platform

Digitize >> 1 week

Once your lab is digital-ready, Cognizant will ensure that analytical data flows from these newly instrumented devices into the Cognizant Lab Insights application. Short- and long-term goals will be established to provide a clear path to scaling operations.

The Cognizant Lab Insights digital lab management application enables different types of labs—research, genomic, animal, process, manufacturing and quality to centrally collect and analyze data on lab processes from the often-disparate sources in operation.

With Cognizant Lab Insights, users can observe lab activity on-demand, analyze lab data, and quickly respond to out-of-range results without halting a process. Lab personnel can create metadata-rich, reusable recipes in Cognizant Lab Insights using a simple, intuitive user experience. Users can also

create processes based on these recipes, as well as control parameters and their associated ranges of operation. Using the built-in utilization metrics, lab personnel can easily determine process and equipment status—and when to intervene. Visual indicators help personnel discern risks with under-utilized lab equipment and out of range operations.

Cognizant Lab Insights is a role-based, secure SaaS application that provides quick configurable alerts and notifications of status information through emails and mobile text messages to help in remote and lab monitoring. Access to lab data on-demand, from any location, at any time, improves operational efficiency and increases your lab's ability to react to process results.

Key benefits

Preserve legacy investments, save on millions of dollars spent on capital investments
The existing devices, instruments, and systems in any scientific lab represent a significant financial investment. Cognizant Lab Insights Solution helps to maximize their use. Our Connected Products team will get your lab digital-ready. The platform's SaaS

architecture enables seamless connection to smart devices, supports acquiring data from other legacy equipment and systems, and controls vocabulary driven manual data upload.

Get to market faster with insight-based decisions; improve scientific productivity
Lab data ingestion, management, control and analysis is fully integrated and uses configurable, standards-driven API-based interfaces—enabling faster decision-making. Instead of waiting to manually generate process failure and instrument usage reports, lab personnel can quickly identify process and equipment health within the application and intervene immediately, while a process is running saving valuable time and consumables.

Process setup in minutes—not weeks; save on personnel and consumables cost
Creating process recipes is incredibly simple in Cognizant Lab Insights. You can build a master digital repository of experiment blocks easily and use an intuitive interface to search, build, edit and reuse your lab's intellectual property. Lab personnel can create a complex series of steps in minutes, instead of days. Configurable templates for different types of labs are available for use with pre-loaded values.

Cognizant Connected Lab Quick Start Program

Because each lab situation varies in scope and size, we do an initial evaluation and recommend an approach based on the number of your labs, as well as their size, type and the complexity of instruments to configure, to determine your Connected Quick Start Program price and statement of work to get you started within days.

The program covers instrumentation assessments for a large number of instruments categories, including:
• Refrigerators, freezers
• Ovens, incubators
• Balances, scales, weighing

• Thermometers, pH meters, osmometers, turbidimeters
• Spectrophotometers, chromatographs

The program adapts to a wide variety of lab types, including:
• Genomic
• R&D
• Process
• Manufacturing
• Animal

The Connected Lab Quick Start Program assesses existing lab operations, defines a roadmap for lab equipment IoT instrumentation and provides the support you need to establish a connected lab environment.

Learn More

Greater efficiency in decision-making directly impacts a lab's cost to operate. Cognizant Lab Insights Solution improves every step of operations—greatly reducing effort, risk, and costs—and simplifies the digital journey from manual operations to a connected lab. For more information, or to request a demo, visit https://www.cognizant.com/accelerator/portfolio/lab-data-insights to get started today.

About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.

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