Digitization: The Key to Survive a Remote Food Safety Audit

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Learning Objectives

- Get an overview of food safety & its importance.
- Get an overview of remote food safety audits.
- Gain tips for food testing labs to prepare for a remote audit.
- Understand how food testing labs can digitize their operations to survive a remote food safety audit.

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What is Food Safety?

Food safety refers to the safe handling of food items through:

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Unsafe Food: A Cause of Diseases & Deaths

World Health Organization

- Unsafe food with pathogenic bacteria, viruses, parasites, or chemicals can cause more than 200 different illnesses.
- An estimated 600 million people worldwide fall ill each year after eating contaminated food, resulting in 420,000 deaths.

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An Example of a Food Safety Hazard

In 2008 and 2009, more than 700 people in over 46 U.S. states were infected with *Salmonella* serotype Typhimurium.

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Factors Impacting Food Safety

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Food Safety Challenges

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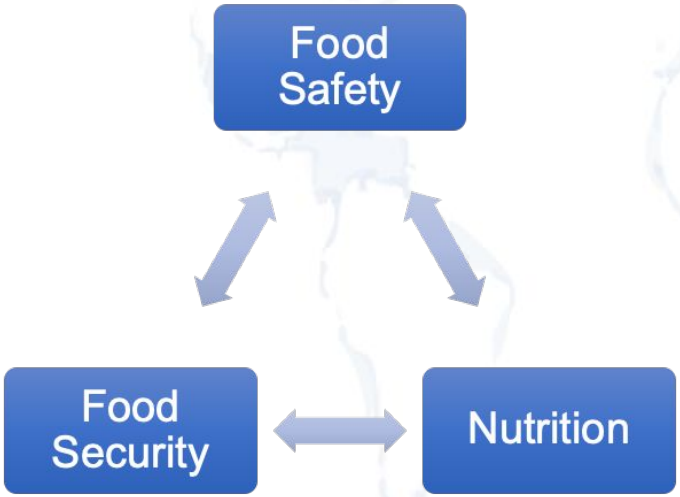
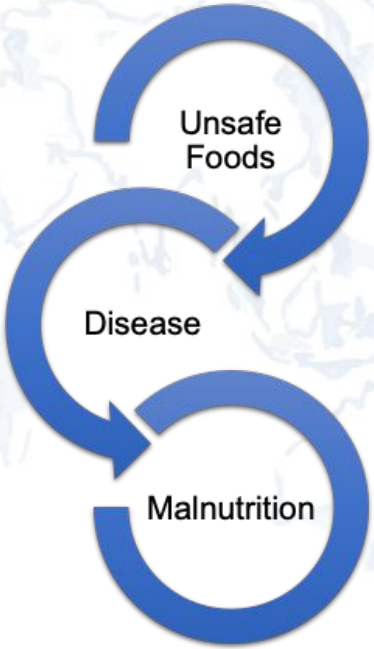
Why Food Safety is Important

World Health Organization





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How Food Safety Can be Assured

- Critical planning, close monitoring & regulation of the production line, sampling points, critical control points
- Managing and scheduling tests effectively

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Why Food Testing is Important

- Food testing gives an authenticity check to assure food manufacturers that their products are safe for public consumption.

- Food testing labs must follow a set of rules and regulations to assure accurate, valid, & reproducible test results.

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Major Regulatory Agencies

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Importance of Food Safety Audits

Audits are important for food processing, manufacturing, and testing facilities and enable supply chain due diligence to maintain food safety and quality standards.

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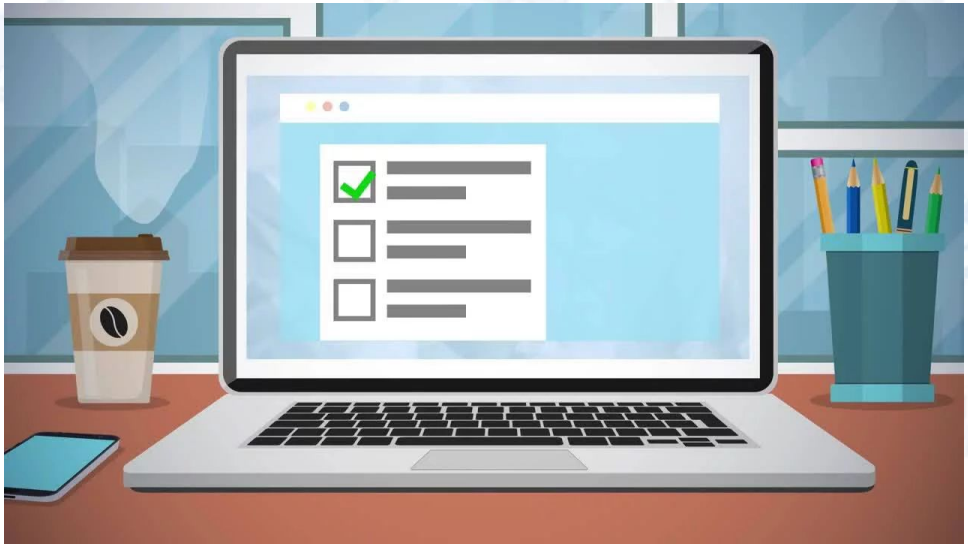
Remote Audit

In the wake of the COVID-19 pandemic, remote audits have become an accepted alternative to traditional onsite audits.



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Steps of a Remote Audit

Remote audits are quite similar to onsite audits.

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Notify

Notify the certifying body/accreditation agency in advance about your requirements for a remote audit.

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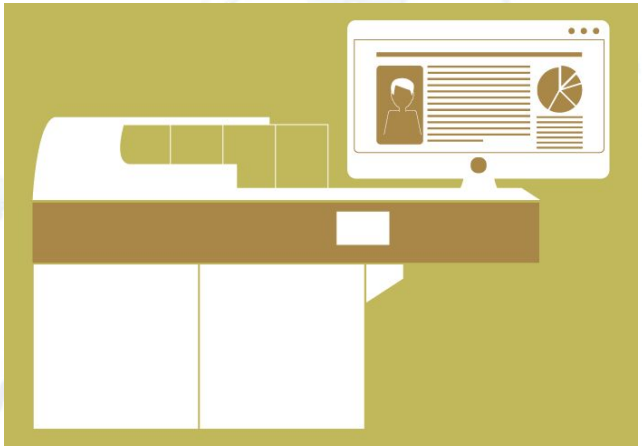
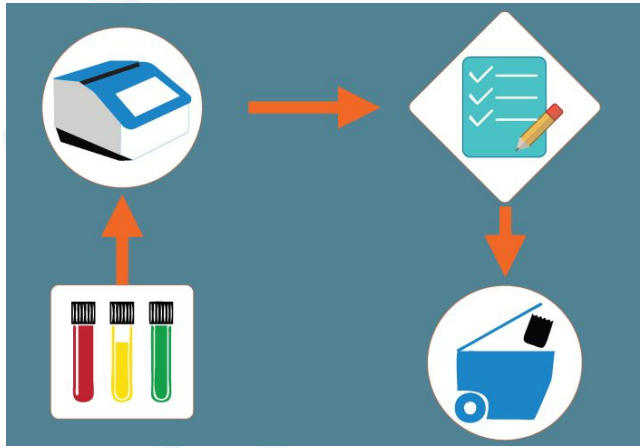
Self Assess

Assess your lab’s programs, facilities, and operational workflows.





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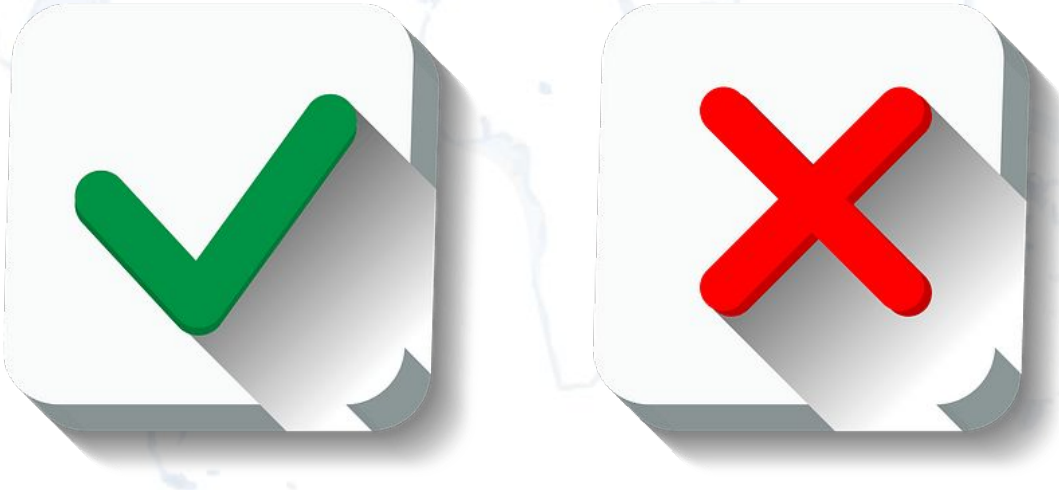
Remote Audit: Yes or No?

Auditors will determine if your lab's records and procedures could be checked and validated remotely.



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Prepare for it!

Once your request for a remote audit is approved, start your preparation!!

- Resources
- Documents
- Reports
- Secure Portal

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Certification

Once the audit is successfully completed, you will receive the certification.

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Is Your Lab Ready for a Remote Audit?

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Planning is the Key to Succeed in a Remote Audit

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Step 1

Make sure to identify all requirements of the audit team.

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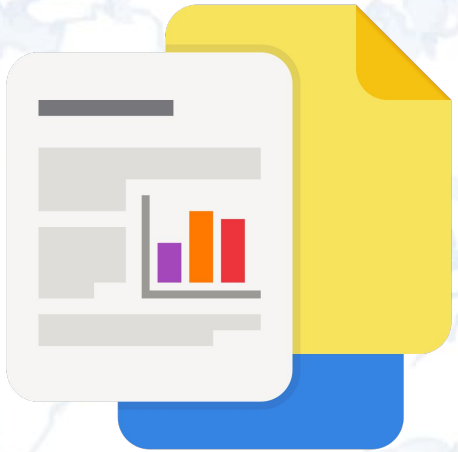
Step 2

Gather all documents in advance.



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Step 3

Depute staff to monitor the entire remote audit process and be available throughout the audit.

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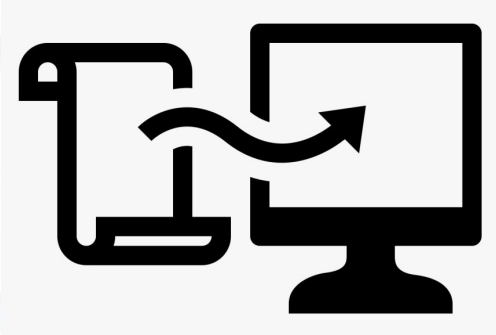
Step 4

Digitize all necessary documents ahead of time for quick sharing at any time.



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Step 5

Ensure fast and secure internet connection to avoid any interruption in the remote auditing process.

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How Can a LIMS Help You?

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How Can a LIMS Help?

- ✓ Manage documents along with their version history
- ✓ Manage staff along with their training & competency records
- ✓ Digitally manage the entire sample life cycle
- ✓ Maintain an audit trail of all lab activities

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How Can a LIMS Help?

- ✓ Integrate with lab instruments and software
- ✓ Manage QC samples & their test results
- ✓ Enforce authentication of key activities through digital signatures
- ✓ Generate and store all CoAs with ease

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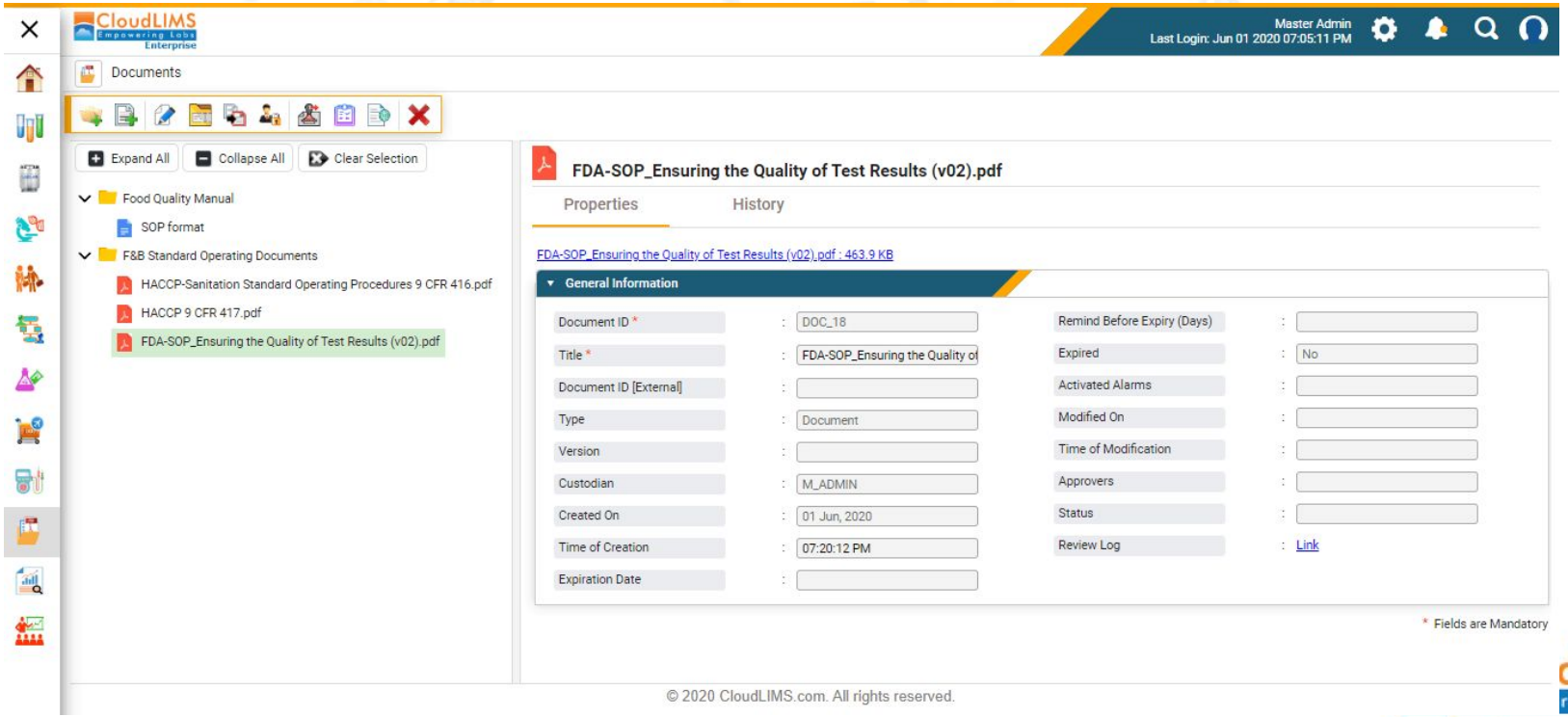
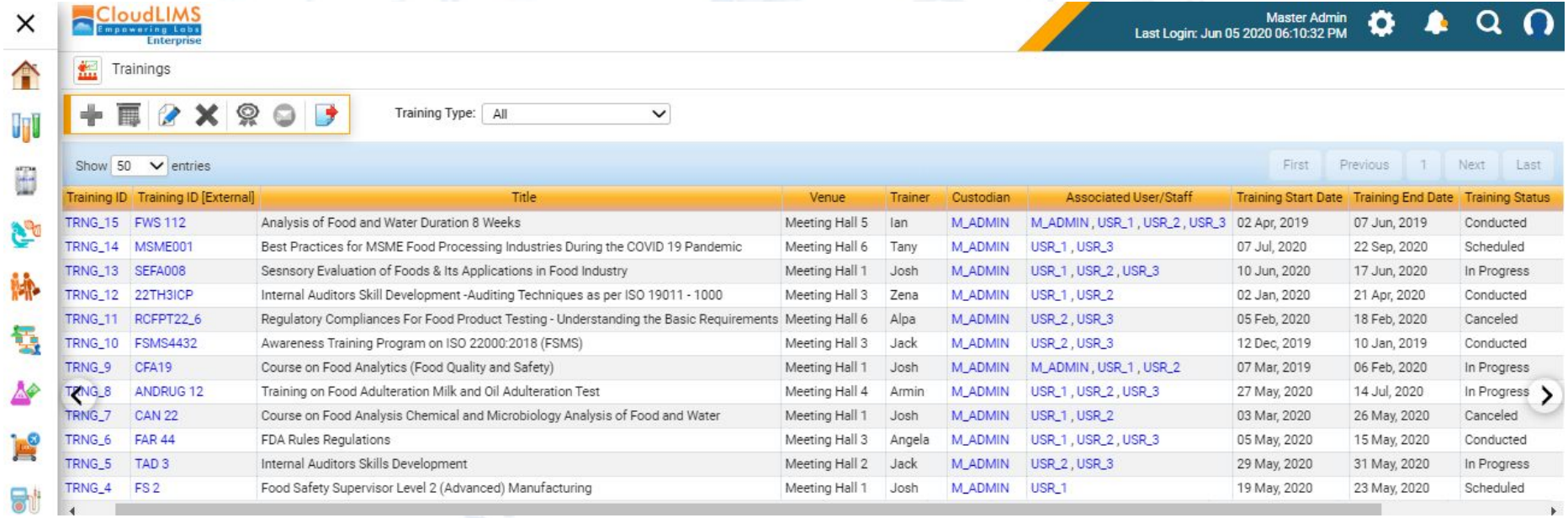
Manage & Control Documents

Digitally store SOPs and documents, track their full version history, and provide role-based access to all authorized users



Manage Staff Training

Manage staff training & their competency



Training ID	Training ID [External]	Title	Venue	Trainer	Custodian	Associated User/Staff	Training Start Date	Training End Date	Training Status
TRNG_15	FWS 112	Analysis of Food and Water Duration 8 Weeks	Meeting Hall 5	Ian	M_ADMIN	M_ADMIN , USR_1 , USR_2 , USR_3	02 Apr, 2019	07 Jun, 2019	Conducted
TRNG_14	MSME001	Best Practices for MSME Food Processing Industries During the COVID 19 Pandemic	Meeting Hall 6	Tany	M_ADMIN	USR_1 , USR_3	07 Jul, 2020	22 Sep, 2020	Scheduled
TRNG_13	SEFA008	Sesnsory Evaluation of Foods & Its Applications in Food Industry	Meeting Hall 1	Josh	M_ADMIN	USR_1 , USR_2 , USR_3	10 Jun, 2020	17 Jun, 2020	In Progress
TRNG_12	22TH3ICP	Internal Auditors Skill Development -Auditing Techniques as per ISO 19011 - 1000	Meeting Hall 3	Zena	M_ADMIN	USR_1 , USR_2	02 Jan, 2020	21 Apr, 2020	Conducted
TRNG_11	RCFPT22_6	Regulatory Compliances For Food Product Testing - Understanding the Basic Requirements	Meeting Hall 6	Alpa	M_ADMIN	USR_2 , USR_3	05 Feb, 2020	18 Feb, 2020	Canceled
TRNG_10	FSMS4432	Awareness Training Program on ISO 22000:2018 (FSMS)	Meeting Hall 3	Jack	M_ADMIN	USR_2 , USR_3	12 Dec, 2019	10 Jan, 2019	Conducted
TRNG_9	CFA19	Course on Food Analytics (Food Quality and Safety)	Meeting Hall 1	Josh	M_ADMIN	M_ADMIN , USR_1 , USR_2	07 Mar, 2019	06 Feb, 2020	In Progress
TRNG_8	ANDRUG 12	Training on Food Adulteration Milk and Oil Adulteration Test	Meeting Hall 4	Armin	M_ADMIN	USR_1 , USR_2 , USR_3	27 May, 2020	14 Jul, 2020	In Progress
TRNG_7	CAN 22	Course on Food Analysis Chemical and Microbiology Analysis of Food and Water	Meeting Hall 1	Josh	M_ADMIN	USR_1 , USR_2	03 Mar, 2020	26 May, 2020	Canceled
TRNG_6	FAR 44	FDA Rules Regulations	Meeting Hall 3	Angela	M_ADMIN	USR_1 , USR_2 , USR_3	05 May, 2020	15 May, 2020	Conducted
TRNG_5	TAD 3	Internal Auditors Skills Development	Meeting Hall 2	Jack	M_ADMIN	USR_2 , USR_3	29 May, 2020	31 May, 2020	In Progress
TRNG_4	FS 2	Food Safety Supervisor Level 2 (Advanced) Manufacturing	Meeting Hall 1	Josh	M_ADMIN	USR_1	19 May, 2020	23 May, 2020	Scheduled

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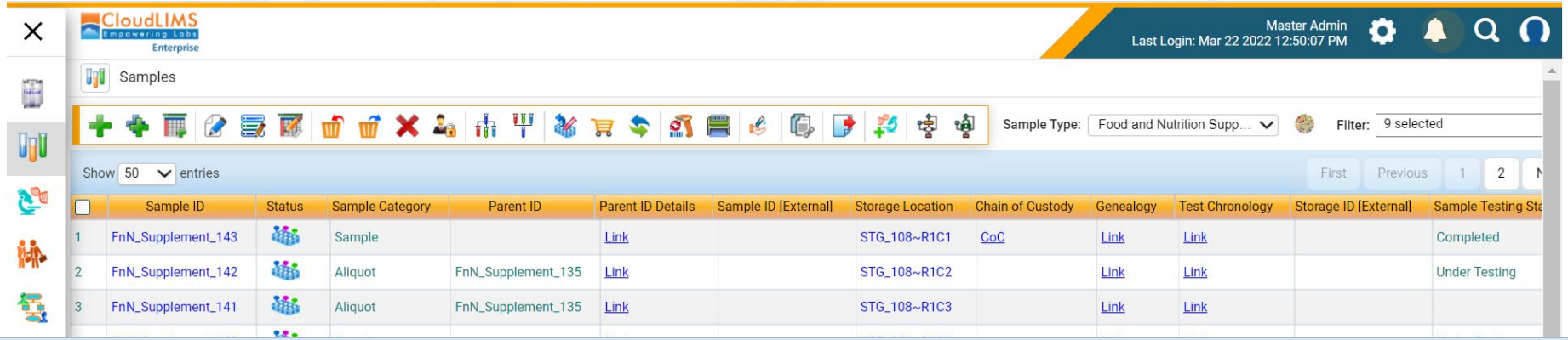
Manage Samples Through Their Lifecycle

Manage samples from accessioning to disposal & maintain a chain-of-custody (CoC)



Chain of Custody Log for 'FnN_Supplement_143'

Export as:

S. No.	Activity Date/Time	Updated By	Action Performed	Attribute Name	Original Value	Current Value	In Change Value	Current Location	Reason
1	17 Mar, 2020 [09:10:36 AM GMT+05:30]	Master Admin	Transferred	Custodian	M_ADMIN	USR_2		STG_108~R1C1	
2	17 Feb, 2021 [12:12:01 PM GMT+05:30]	Master Admin	Transferred	Custodian	USR_2	M_ADMIN		STG_108~R1C1	
3	22 Mar, 2022 [12:55:12 PM GMT+05:30]	Master Admin	Transferred	Custodian	M_ADMIN	USR_2		STG_108~R1C1	

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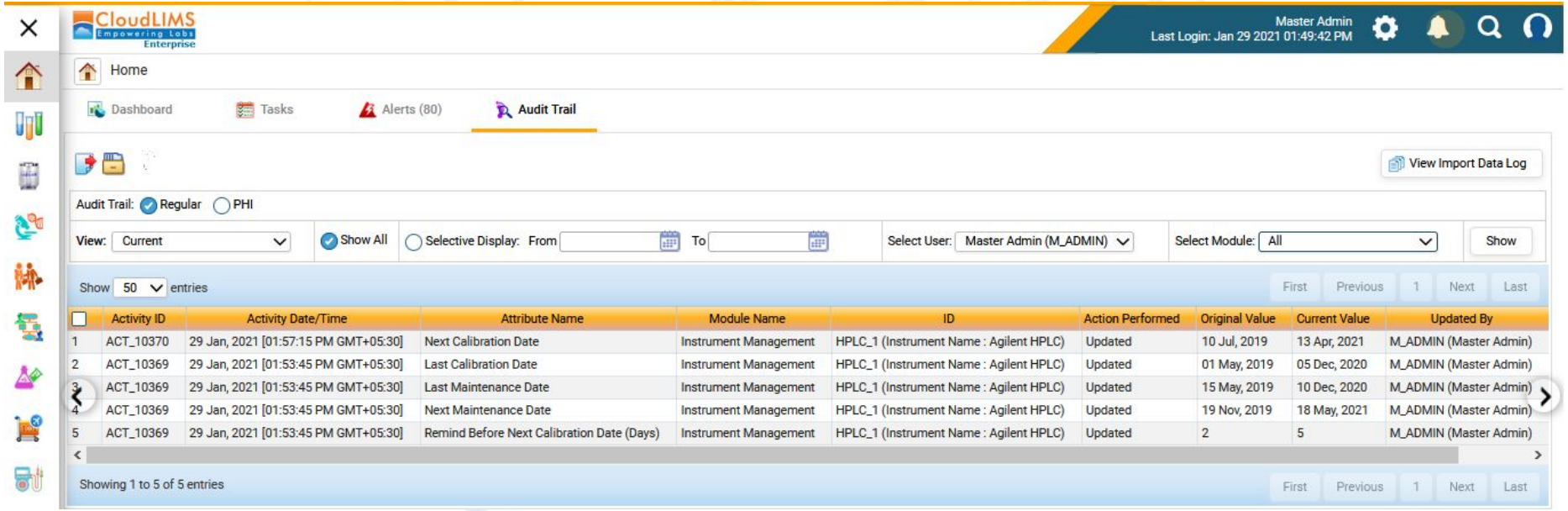
Audit Trail

Maintain a read-only audit trail of each activity along with a date & time stamp



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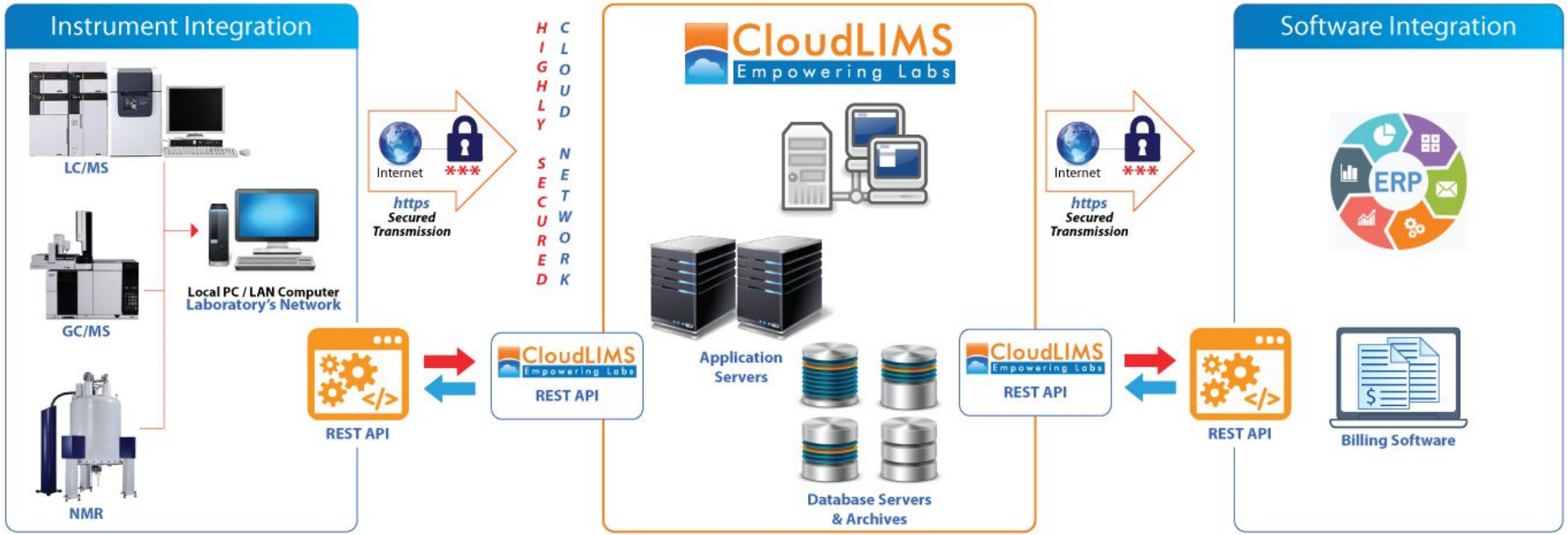
Integrate with Instruments & Software

Instrument and software integration assures data integrity, minimizes turnaround time, and enhances laboratory efficiency



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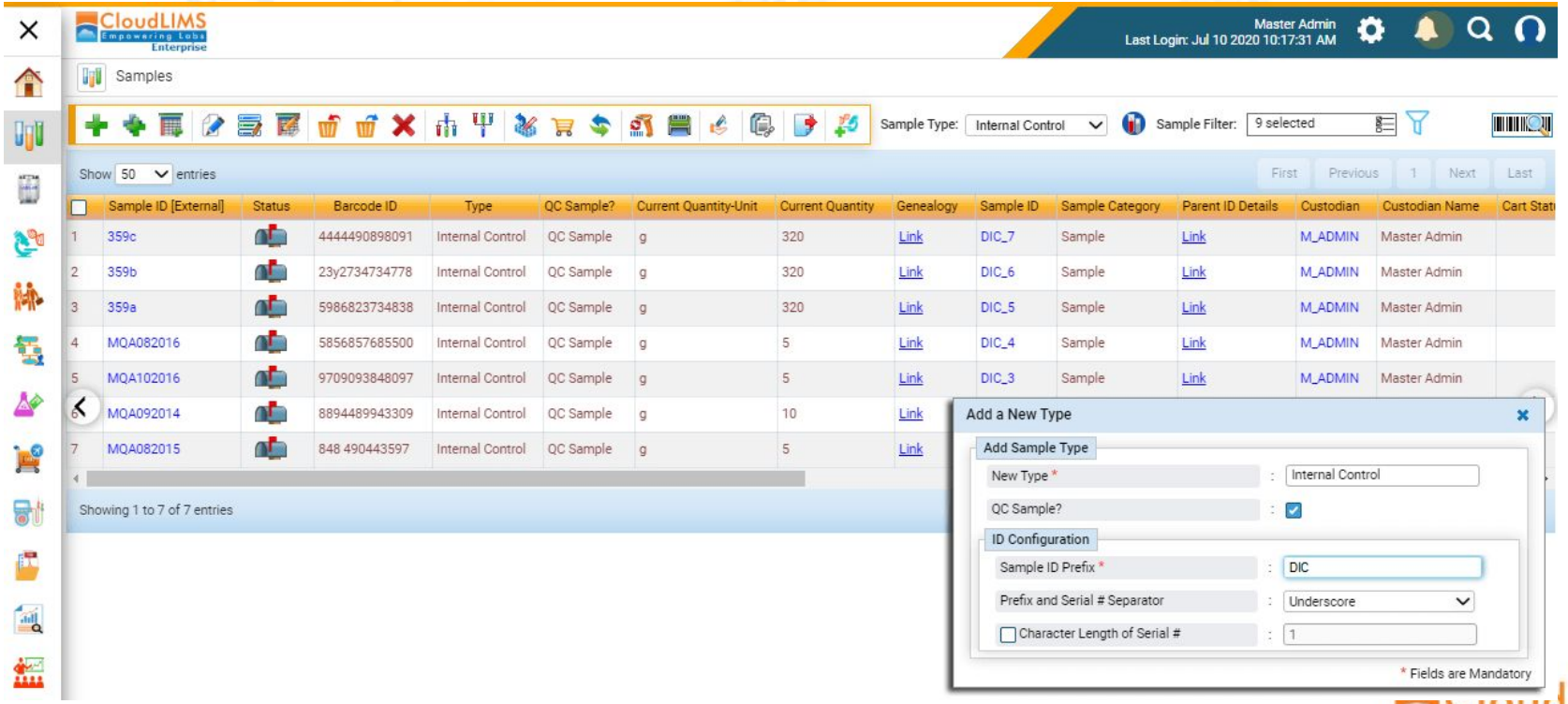
Manage QC Samples & Their Test Results

Manage quality control samples and monitor their results to detect anomalies



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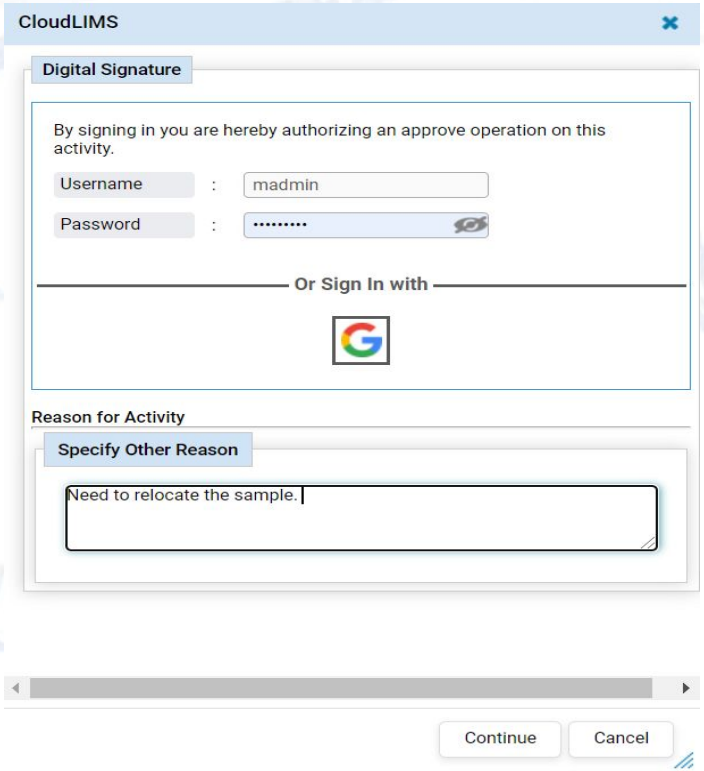
Authenticate Key Lab Activities

Enforce staff to authenticate key activities using electronic signatures



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Generate Custom CoAs

MTL Certificate of Analysis

Milk Testing Lab, Plot 45, HWY 123, Leander, Texas, United States

Sample Information

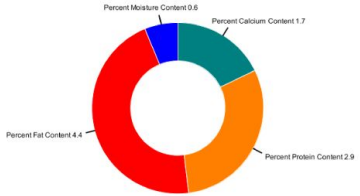
Sample ID	Status	Sample Lot ID	Type	Batch ID	Current Quantity	Current Quantity-Unit	Custodian
W_Mil_P_3	Received	EID00000030	Whl Milk Powder	WMP_012	28	ml	M_ADMIN

Test Information: Milk QC Test/ Powder Quality

Test ID	Created By	Type	Group	Code	Technician Name
Mil_P_Qua_3	M_ADMIN	Milk QC Test_Powder Quality	Milk QC Test	Powder Quality	Master Admin

Analytes and Results: Milk QC Test/ Powder Quality

Analyte Group	Analyte ID	Analyte Name	Test Run Number	Observed Value	Unit
Powder_Quality_Test	ARQNMil_P_Qua_2	Percent Moisture Content	1	0.6	%Volume
Powder_Quality_Test	ARQNMil_P_Qua_3	Percent Fat Content	1	4.4	%Volume
Powder_Quality_Test	ARQNMil_P_Qua_4	Percent Protein Content	1	2.9	%Volume
Powder_Quality_Test	ARQNMil_P_Qua_5	Percent Calcium Content	1	1.7	%Volume



Dr. Gerard Paul
Lab Director
07 Jun, 2020

Dr. Victoria Lee
Lab Manager
07 Jun, 2020

Disclaimer:
All tests are conducted by Milk Testing Laboratory and the results are duly validated.

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Why Digitization?

EFFICIENCY

ERRORS

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Key Takeaways

- An overview of food safety and its importance.
- Benefits of remote audits over the traditional onsite audits:
  - Cost-effective
  - Digital reports & documentation
- Tips for passing a remote audit.
- How to digitize record-keeping processes and lab workflows, and participate in remote food safety audits seamlessly.

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