CONNECT, AUTOMATE, MONITOR: MONITOR DIGITAL LAB ACTIVITY, EMPOWER DATA INTEGRITY AND COMPLIANCE WITH SCITARA DLX™
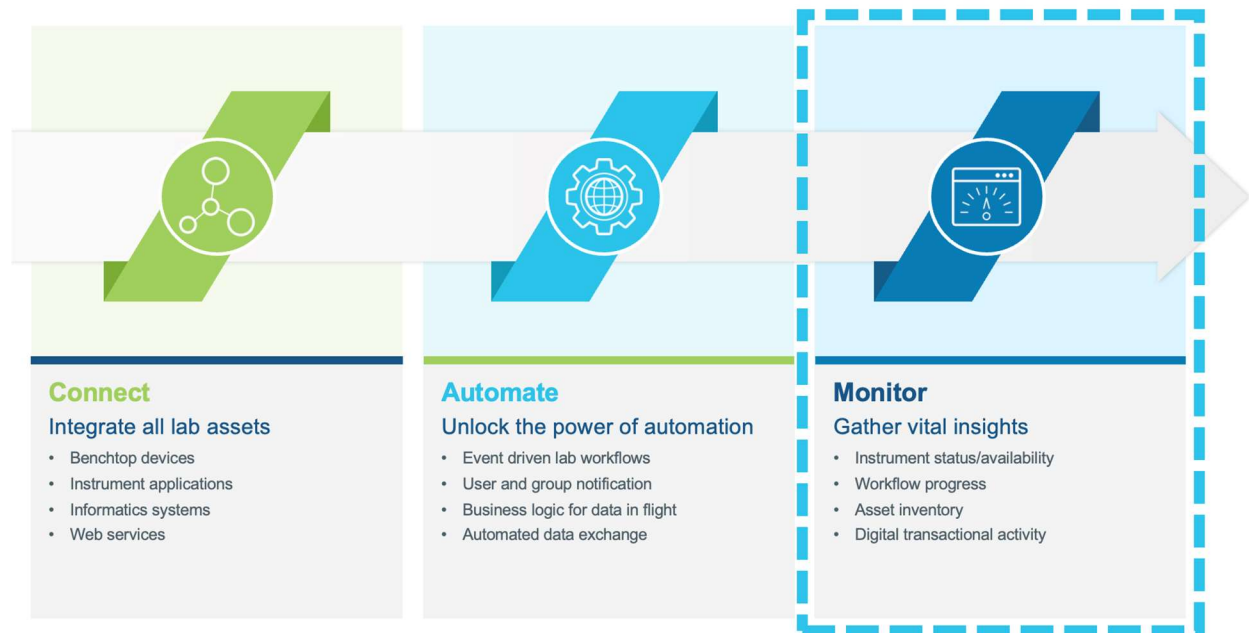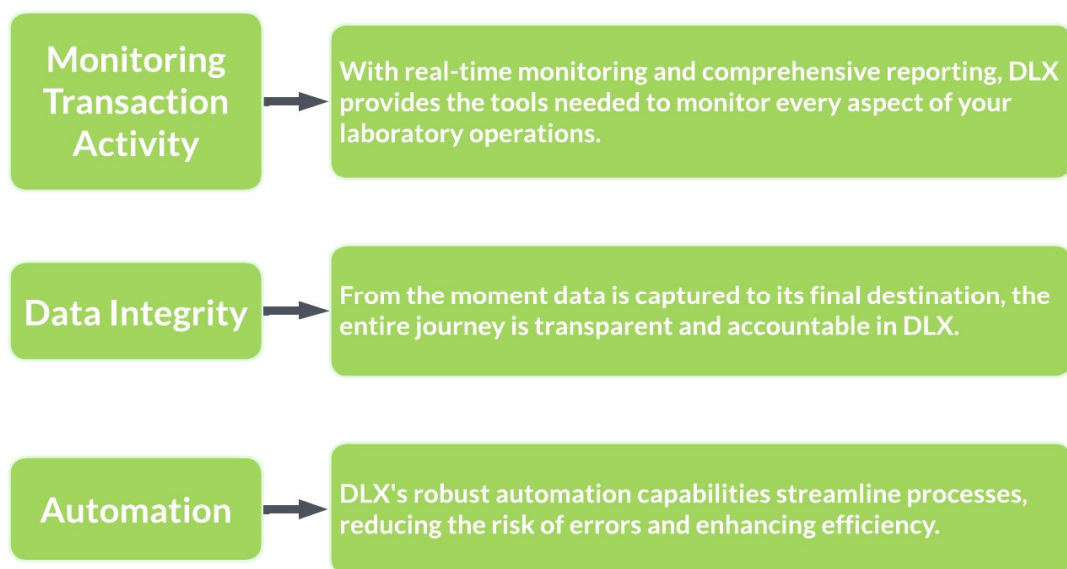
Connect
Integrate all lab assets
- Benchtop devices
- Instrument applications
- Informatics systems
- Web services

Automate
Unlock the power of automation
- Event driven lab workflows
- User and group notification
- Business logic for data in flight
- Automated data exchange

Monitor
Gather vital insights
- Instrument status/availability
- Workflow progress
- Asset inventory
- Digital transactional activity

In the ever-evolving landscape of life sciences, laboratories are at the forefront of innovation, continually pushing boundaries to bring new drugs and therapies to market. However, this pursuit of excellence demands a robust system that not only meets compliance requirements but also ensures data integrity throughout the drug discovery and development process. Monitoring and real-time insights have become indispensable tools for lab managers. Monitoring In DLX can be broken up into two parts: Lab Management and Data Integrity and Compliance. Lab managers can view instrument status and availability through the Connection dashboard in DLX, as well as use the Orchestration execution history to observe workflows and view all connective endpoints and real-time data. Monitoring ensures data Integrity and compliance In DLX by tracking all payloads and storing real-time data that can be Instantly accessed.

Enter the Scitara DLX™ Audit Trail and Event Stream, two powerful tools that work in tandem to provide a comprehensive history. These interfaces supply invaluable insights into laboratory processes, data exchanges, and user activities, enhancing data integrity, compliance, and decision-making in the lab.

Monitoring Transaction Activity
With real-time monitoring and comprehensive reporting, DLX provides the tools needed to monitor every aspect of your laboratory operations.

Data Integrity
From the moment data is captured to its final destination, the entire journey is transparent and accountable in DLX.

Automation
DLX's robust automation capabilities streamline processes, reducing the risk of errors and enhancing efficiency.

Orchestration Execution View: Scitara DLX's Orchestration execution view empowers lab managers to monitor Orchestration execution in real time. Moreover, if any questions arise, they can immediately inspect the payloads, ensuring data accuracy and process integrity. Data In the Orchestration execution view is the same as the data stored In the Event Steam, but the Orchestration execution history provides lab managers with a transactional view of real-time data in the lab. This level of oversight is invaluable in minimizing errors and optimizing lab operations.

Data integrity and Compliance Support

In the highly regulated field of life sciences, compliance is paramount. Regulatory bodies require a meticulous record of actions taken in the lab. This is where the Audit Trail and Event Stream capabilities of Scitara DLX come into play. These features ensure that every action, event, or change in data is meticulously recorded, creating a comprehensive trail of documentation. This not only satisfies regulatory requirements but also helps in internal quality control and accountability.

The benefits of embracing the DLX Audit Trail and Event Stream extend beyond compliance and data integrity. The DLX Event Stream provides a meticulously detailed log of data exchange activities and captures every facet of the data journey from inception to destination, while the DLX Audit Trail focuses on user-generated activities and system configuration changes. By adopting this connected approach, laboratories are better positioned to make faster and more accurate decisions in the drug discovery and development process. This, in turn, expedites the journey of new drugs to market, a goal that resonates throughout the pharmaceutical industry. In this blog post, we will explore how these features can impact data management in modern laboratories, ultimately accelerating the journey from discovery to market.

Event Stream: Enhanced Data Visibility

Imagine having a real-time, unerring chronicle of every significant action within your laboratory environment. That's precisely what the Event Stream in Scitara DLX offers. The Event Stream primarily focuses on data in transit, documenting the flow of data from primary events to secondary

events. It offers insights into data exchanges and helps establish a traceable data trail. It serves as a meticulous chronicler of every significant action within the laboratory environment.

The Event Stream commences with primary events, which serve as triggers for a new event chain. These primary events include Connection Events and the Orchestrations they trigger, as well as any user- or timer-triggered action that execute an Orchestration. Secondary events are linked to primary events, creating a chain of events that documents the entire workflow. These secondary events encompass all events that follow the primary event, including Orchestration Step start and completion events, as well as Orchestration start and completion events.

While the Event Stream may not be strictly viewed as a compliance item, it provides enhanced visibility into data exchanges between connected devices. This visibility is a valuable complement to the Audit Trail and establishes a comprehensive record of data traceability. Researchers can track data from its inception as a primary event, through all secondary events, thereby creating a complete and unbroken data trail.

Furthermore, the event stream record can be stored indefinitely in the cloud. This feature ensures that historical data is preserved and remains accessible for future reference, audits, or analysis. With the Event Stream, you can be confident in the integrity of your data. It serves as the foundation for compliance with industry regulations, such as Good Laboratory Practices (GLP) and Good Manufacturing Practices (GMP), by providing a transparent and tamper-evident data history.

Here is what the Event Stream offers:

Real-Time Anomaly Detection	- Keeps a vigilant eye on data movements in real-time, swiftly identifying anomalies or deviations as they occur. - Swift issue resolution becomes possible, reducing the risk of data errors and process disruptions. - Searches and reconstructs data events as needed. This capability is a game-changer for audits, investigations, and data validation.
Granular Process Optimization	- Dives deep into Function Transform Activity logs within the Event Stream to gain a microscopic view of data processing. - Pinpoints bottlenecks, inefficiencies, or areas for improvement in workflows. - Optimizes processes with precision, backed by data-driven insights.

Enhanced Data Traceability	• From data inception (primary events) to secondary events, the Event Stream establishes an unbroken trail. This level of traceability ensures data integrity, a critical factor in investigations and research validation.
	• Meticulously logs data. Whether it's data preprocessing, analysis, or transformation, you have a complete record of every action performed on your data.
	• Captures data at its source to ensure that the moment it enters the laboratory ecosystem, it is logged into the Event Stream. This means that even data in flight is tracked, providing real-time visibility.
Valuable Historical Analysis	• Indefinite cloud storage of Event Stream records provides access to a treasure trove of historical data.
	• Analyzes past events, patterns, and trends to inform future decisions and strategies.
	• Once the data reaches its target destination, the Event Stream continues to capture it. This ensures that you have an unbroken chain of custody for your data, from its original capture to its final storage location.

Audit Trail: A Permanent Record of User Activities

In contrast to the Event Stream, the Audit Trail within Scitara DLX is a compliance-driven feature that focuses on user activities and system changes. It records user logins, actions, and security events, supplying a permanent record for accountability and audit purposes. In a world where compliance is paramount, transparency and accountability in user activities are non-negotiable. The Audit Trail is immutable and permanent, ensuring that once an event is recorded, it cannot be altered or deleted. This means that once an event is recorded in the Audit Trail, it cannot be altered or deleted, ensuring the integrity of your data. Authorized users can access various key details related to every user action or event, allowing for easy monitoring and tracking activities within the Scitara DLX system. The Audit Trail not only fosters a culture of accountability within your organization for compliance but also for internal audits, training, and security assessments.

Changes to DLX configuration parameters as well as any creation, modification, or deletion of data is meticulously recorded in the Audit Trail, ensuring data integrity. This is crucial for maintaining the stability and consistency of the laboratory environment. The Audit Trail also offers the flexibility to filter logs by user, event kind, or date range, allowing for users to easily pinpoint specific activities and events for analysis or audit purposes.

Furthermore, you can easily download the event information displayed in the Audit Trail window in .CSV format. This makes it convenient to archive, analyze, or share event data. For a deeper understanding of any specific event, you can click anywhere on the event row to view detailed information, providing context and insights into each recorded action.

The Audit Trail provides:

Compliance Assurance	• A permanent record of user logins, password changes, and actions establishes compliance credentials. This helps administrators monitor user behavior and provides a clear record of who did what and when, ensuring accountability and transparency.
	• These records serve as compelling evidence of adherence to data integrity and security standards during audits and inspections.

System Integrity Documentation	• Every change to the system's state, security events, and timestamp records is meticulously recorded. This documentation becomes the backbone of maintaining an audit trail for system integrity and security. • By maintaining a secure record of all user events, the Audit Trail ensures that you can meet regulatory requirements and internal security protocols. More importantly, it does not display sensitive information like passwords, which safeguards user data.
Clear Chronological View	• Timestamp records for every event provide a crystal-clear chronological view of system activities. • This chronological perspective is pivotal for audits, investigations, and piecing together events.

Conclusion

The Scitara DLX Event Stream and Audit Trail UIs are more than just features; they are instruments of empowerment in the pursuit of data integrity, compliance, and operational excellence in the laboratory. In an era where every data point matters, harnessing insights from these interfaces is the path to safer, more accurate, and more efficient pharmaceutical research. The Event Stream and Audit Trail are your indispensable keys to unlocking the full potential of data in the modern laboratory.

Contact us today to schedule a demo of Scitara DLX and discover how the Event Stream and Audit Trail promote compliance and data Integrity in the modern lab.