

CASE STUDY

CreditSnap Scales Digital Lending Infrastructure Through Automated Data Management



Digital lending is projected to grow more than 20% annually through 2028, placing increased demands on FinTech platforms. CreditSnap is a fintech that delivers automated lending and deposit account opening solutions for banks and credit unions, enabling instant pre-qualification with no credit impact. In 2025, CreditSnap was acquired by SavvyMoney as part of an effort to expand fintech lending and deposit automation capabilities.

As the company scaled, growing transactional and compliance data strained its MySQL-based production environment, prompting a partnership with Data-Sleek to strengthen and automate its data foundation while maintaining performance and reliability.

The Challenges:

Performance, Retention, and Compliance Risks

As CreditSnap scaled, growing data volumes strained its MySQL-based production environment, creating performance, operational, and compliance risks. Manual processes limited engineering capacity and introduced potential errors.

Key challenges included:

- **Database bloat:**
Project details, budgets, sales activity, and time tracking lived across Buildertrend, Pipedrive, QuickBooks Online, Monday.com, and Clockify.
- **Performance risk:**
Active workloads were impacted by high data volumes, threatening near-instant responsiveness.
- **Manual retention processes:**
Engineering teams spent excessive time managing archival tasks, increasing operational overhead.
- **Compliance and accessibility:**
Retained data needed to remain secure, accessible, and audit-ready, adding complexity to data management.

Without intervention, these challenges risked service slowdowns and higher infrastructure costs. They could also delay prequalification and loan processing, reducing customer satisfaction and limiting engineering focus on core product improvements.

Objectives and Success Criteria

What Needed to Change and Why

As CreditSnap scaled its digital lending and account opening platform, maintaining near-instant responsiveness became critical to customer experience and partner trust. At the same time, growing transactional volume and regulatory retention requirements strained the MySQL production environment and engineering capacity.

The engagement aimed to reduce operational and compliance risk while supporting seamless growth. CreditSnap required a solution that would:

- Automate data retention and archival without disrupting workflows
- Preserve system performance and uptime
- Ensure audit readiness and regulatory compliance
- Avoid a disruptive database migration
- Free engineering teams to focus on product development rather than operational maintenance

These objectives established clear operational intent, signaling why automation and scalable infrastructure were essential to meet both business and technical demands.

How Impact Would Be Measured

Success was defined by CreditSnap’s ability to maintain performance and reliability under growing data volumes while reducing operational overhead and ensuring compliance. Specifically, the engagement would be considered successful if it delivered:

- Consistent or improved query performance on transactional and historical data
- Automated archival and retention processes eliminating manual effort
- Secure, auditable access to support regulatory requirements
- Zero disruption to production systems during implementation
- A scalable data management foundation capable of handling higher application and transaction volumes without re-architecture

These criteria created a clear benchmark for evaluating both technical effectiveness and business impact prior to implementation, providing a logical bridge to the Solution section and the measurable outcomes that follow.

The Solution:

Strategy, Automation, and Scalable Architecture

CreditSnap partnered with Data-Sleek to modernize data management, automate workflows, and ensure scalable growth while maintaining performance, compliance, and operational efficiency. The solution was intentionally designed to improve scale and compliance without introducing downtime or requiring a full database migration.

Data Audit and Assessment

The audit focused on identifying production-level risks affecting performance, compliance, and scalability, rather than theoretical optimization or platform replacement. Data-Sleek conducted a comprehensive audit of the MySQL infrastructure to identify operational and compliance risks. Key findings included:

- Database bloat slowing queries and increasing costs
- Manual retention processes consuming engineering time
- Compliance risks due to inconsistent archival
- Workflow bottlenecks limiting scalability

Automation and Workflow Optimization

Because CreditSnap operates continuous, high-volume lending workflows, automation was required to manage retention and archival without introducing latency, downtime, or manual intervention. Custom automation scripts were implemented to continuously manage data while reducing errors and operational overhead. Scripts:

- Scan, flag, and archive outdated records in real time
- Reduce manual workload and human error
- Enable historical data retention without disrupting
- 24/7 operations



Technology Implementation and Enablement

Infrastructure and maintainability were addressed together to extend the existing MySQL environment while offloading historical data to scalable, cost-efficient storage. Measures included:

- AWS S3 for cost-efficient, redundant, long-term storage, reducing storage costs by 50%
- Linux servers hosting automation scripts reliably
- MySQL remained the primary database to avoid full migration
- Automated pipelines transferred archived data securely to S3
- Schema optimization reduced table bloat and improved query performance
- Monitoring alerts detected failures and anomalies
- Rigorous testing in staging environments ensured smooth production rollout
- Maintained 100% uptime during migration, ensuring uninterrupted client services
- Comprehensive runbooks, dashboards, and documentation supported operational handoff
- Engineering teams trained on script management, S3 access, and alert handling
- Automation reduced manual dependency, enabling teams to focus on product enhancements

Operational and Business Impact

The solution delivered measurable benefits for both performance and compliance:

- Historical data offloading accelerated loan prequalification and underwriting
- Reduced account opening delays improved partner and customer experience
- Loan approval times decreased by 40%
- System query times improved significantly, reducing delays for active transactions
- Compliance requirements consistently met
- Near-real-time reliability achieved
- Engineering overhead significantly reduced
- Scalable architecture supports future growth without performance degradation
- Application volume capacity increased 3×, enabling the platform to handle higher loan and customer throughput

Key Deliverables, Results, and Impact

Data-Sleek delivered a scalable, automated data management framework addressing CreditSnap's operational, compliance, and performance challenges. Key deliverables included:

- Custom automation scripts for data scanning and archival
- AWS S3 integration for secure, long-term storage
- Optimized MySQL schemas to improve query performance
- Monitoring and alerting systems for proactive issue detection
- Comprehensive documentation and runbooks for operational handoff
- Engineering teams trained on script management, S3 access, and alert handling

Short-Term Results

- Cleared historical data from active databases, improving system performance
- Accelerated queries, reducing system response times
- Loan approval times decreased by 40%
- Reduced manual data retention and archival tasks by 95%, freeing engineering capacity.
- Faster response times for loan prequalification and account opening workflows
- Compliance requirements consistently met
- Near-real-time operational reliability achieved
- Maintained 100% uptime during migration

Long-Term Impact:

- Infrastructure fully scalable for growing data volumes without performance degradation
- Automation reduced operational risk and ensured regulatory readiness
- Application volume capacity increased 3×, enabling higher loan and customer throughput
- AWS S3 integration reduced storage costs by 50%
- Maintainable architecture allows technical teams to focus on product enhancements
- Sustainable foundation established for future growth
- Competitive edge maintained in the digital lending market

Conclusion and Industry Insights

The partnership between CreditSnap and Data-Sleek demonstrates how strategic automation and scalable architecture drive operational efficiency, compliance, and sustainable growth. By modernizing infrastructure, implementing automated archival, and optimizing system performance, CreditSnap achieved faster loan processing, reduced manual workload, and improved reliability.

Centralized, automated data management allows teams to focus on innovation rather than operational overhead. With a resilient, future-ready architecture, CreditSnap can continue expanding services while maintaining compliance, operational excellence, and a competitive edge in digital lending.

About Data-Sleek

Data-Sleek® is a consulting agency and a leading provider of comprehensive data management solutions. We specialize in data transformation, data migration, data integration, data architecture, data warehousing, and database consulting. Our commitment to client satisfaction empowers organizations of all sizes to unlock the full potential of their data assets. Data-Sleek is a trusted partner of Fortune 500 companies, dedicated to innovating and revolutionizing the way you do business.

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