The 5 Main Challenges in Financial Accounting

Classical banks are facing big challenges that require an upgrade of their outdated Financial Accounting to new and more efficient platforms.

Financial Accounting is a core function but still one of the infrastructurally least advanced ones in Banks. The majority of the core systems of big banks are self-developed and based on mainframes. Since years they have been modified to the extent that they have become too complex and difficult to maintain. We have analyzed the situation and have found 5 main challenges for Financial Account Systems.

These are the 5 main Challenges for Financial Accounting Systems

1. Complex reconciliation Processes
Reconciliation is one of the core processes in Financial Accounting to make sure that a transaction captured at front Office is exactly what is booked at the back office. With so many in-house and old systems these reconciliation processes have become complex and tedious.

2. Huge elapsed times due to batch cycles
Even today many huge banks work with overnight batch cycles to process huge amount of data. Due to a dependency on batch runs, business must wait for the next day to verify the results of their actions.

3. Manual and tedious processes to verify and prove data integrity
Current systems used by banks do not guarantee that transaction logged into the system has not been tampered with. There are manual as well as automated processes in place to verify and prove data integrity. These processes are time consuming.

4. Scalability of technical systems
With growing amount of data, current banking systems face the challenge of scalability. To scale these systems is budget intensive and it also puts limitation on process improvements and automation.

5. Ever increasing regulations
Post the 2008 financial crisis, banks are under constant pressure to comply with the ever increasing and stricter regulations. Current systems are not capable to cope with these challenges.

> **The current infrastructure comes with some risks. The results can be monetary loss, regulatory penalties, loss of customer trust and hence customer base and finally reputational damage.**

How to deal with these challenges: Financial Accounting with AWS QLDB

To minimize these risks, we offer a solution: **Quantum Ledger Database (QLDB)** is a database launched by AWS specifically for Record- or Bookkeeping. Underneath it uses the same technology as Blockchain, however unlike Blockchain, it is centralized and does not need multiple parties to authenticate data.

What are the 5 advantages of QLDB for financial accounting?

1. Golden source of data
   With one single golden source of data, it eliminates the need of reconciliation at every step reducing the number of SOX controls required.

2. Hardened Data integrity
   Each journal modification is sequenced and chained together with hashing technique, SHA-256, making each transaction cryptographically verifiable.

3. Full data transparency due to complete and easily accessible historical events
   Each transaction is stored as immutable and append-only journal. Each revision on this data is versioned, enabling users to query the current as well as history of the transaction data.

4. No need of an additional archiving system
   QLDB tracks and stores every single change ever made which is then easily accessible to the user. This eliminates the need of an additional archiving system.

5. Automatic scaling to cope with demanding requirements
   Being a fully managed, serverless and available database service, it is automatically scalable as per the demands of the applications.

So what is next?

It s time for big classical banks to upgrade their outdated systems to new and more efficient platforms. With upgrading to new technologies companies can free up human resources that can then concentrate on more complex transaction and processes rather rahn tedious and labor-intensive tasks. We already see new virtual banks emerging that are working with advanced technology and therefore faster customer service. These are a threat, especially for those banks that are not upgrading their technology as soon as possible. Another threat is non-financial institutions which are also gradually taking up the space as they are not heavily regulated like normal financial institutions. Anyway it is important to remember that classical banks still have an advantage over virtual banks and non-financial institution because of their physical presence and loyal customer base. They must leverage it to their favor by investing in new technology.

Our contact

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and Resolution Program
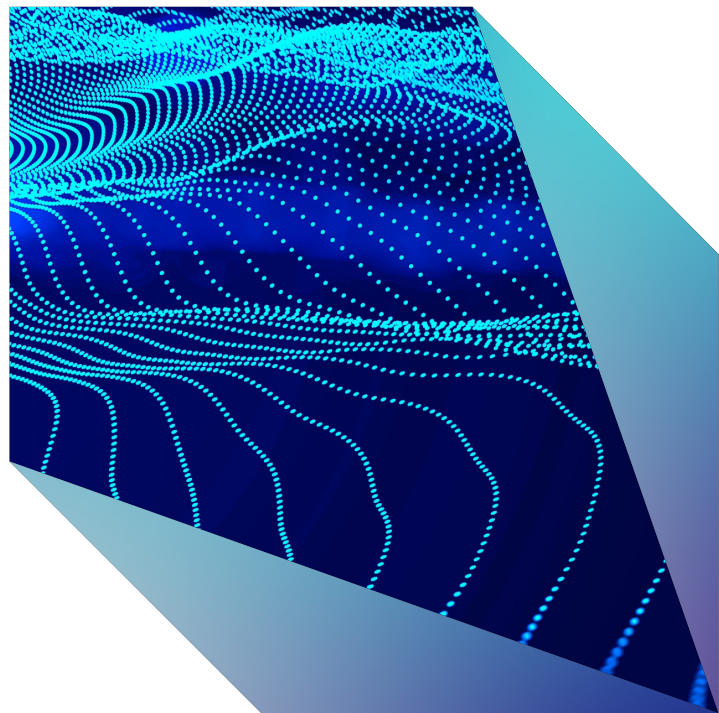
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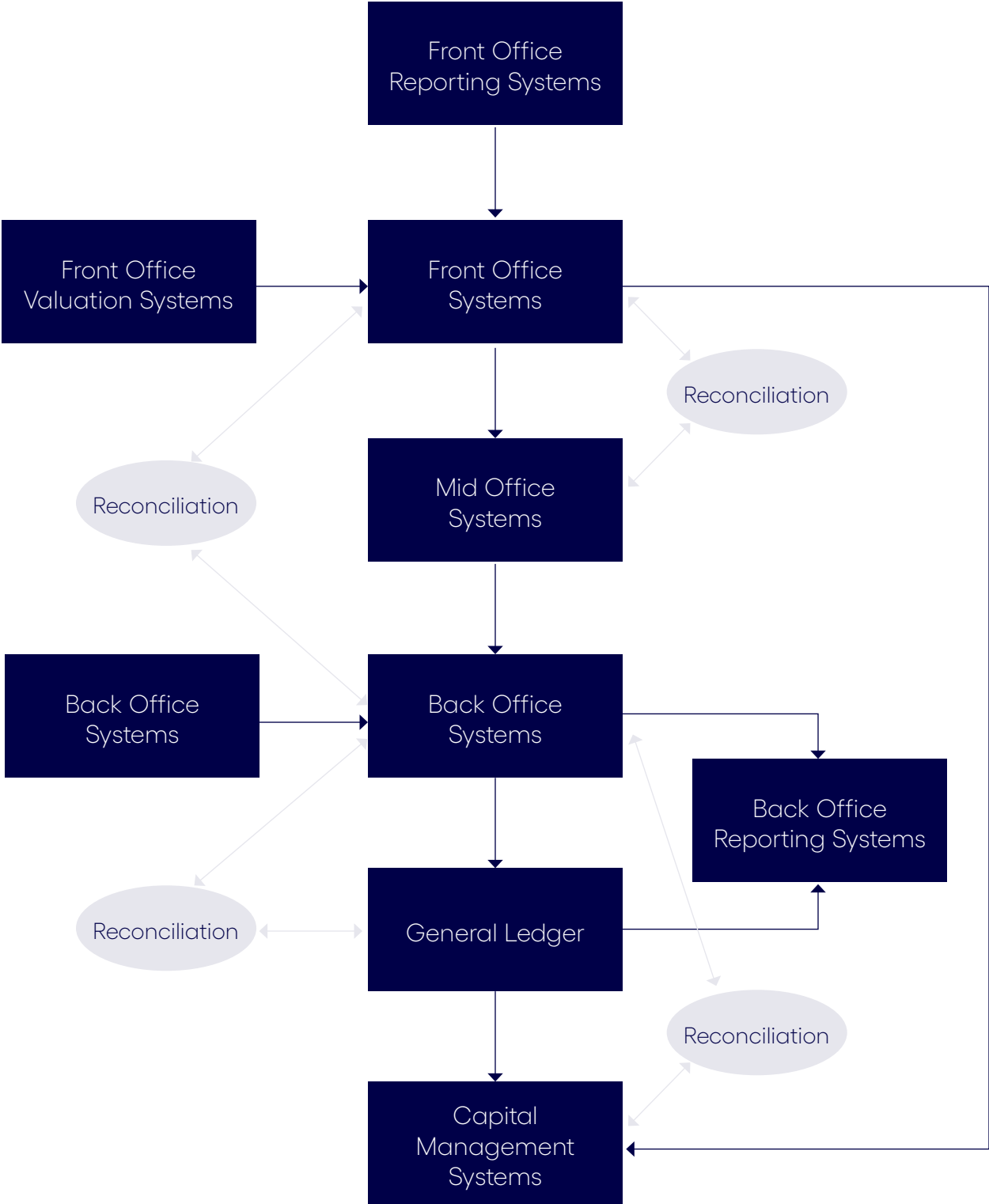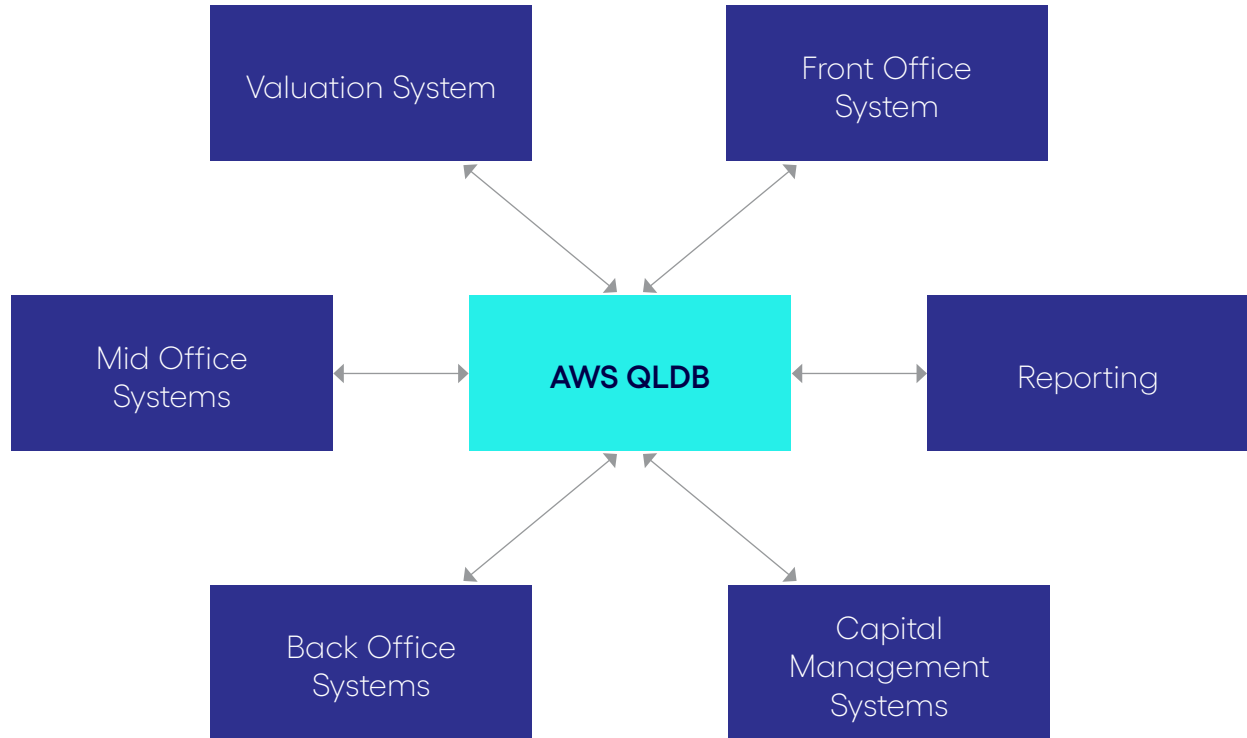
- Complex
- Monolithic
- Tightly coupled
- Reconciliation required at every step
- Different valuations leads to breaks
- Data loss between systems

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                              │  Front Office   │
                              │ Reporting Systems│
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┌─────────────────┐          ┌─────────────────┐
│  Front Office   │─────────▶│  Front Office   │─────────────┐
│ Valuation Systems│          │    Systems      │◀──▶ Reconciliation
└─────────────────┘          └─────────────────┘             │
              Reconciliation          │                      │
                                       ▼                      │
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┌─────────────────┐          ┌─────────────────┐   ┌─────────────────┐
│  Back Office    │─────────▶│  Back Office    │──▶│  Back Office    │
│    Systems      │          │    Systems      │   │ Reporting Systems│
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              Reconciliation          │                      │
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                              │    Capital      │◀────────────┘
                              │  Management     │
                              │    Systems      │
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Front Office Reporting Systems

Front Office Valuation Systems → Front Office Systems

Reconciliation

Mid Office Systems

Reconciliation

Back Office Systems → Back Office Systems → Back Office Reporting Systems

Reconciliation

General Ledger

Reconciliation

Capital Management Systems

Future Architecture with QLDB (Simplistic view)

- Fully decoupled applications
- Real-time processing
- No reconciliation required
- No breaks

Valuation System

Front Office System

Mid Office Systems

AWS QLDB

Reporting

Back Office Systems

Capital Management Systems