Data technology

Transform the lead weight of data into a golden opportunity for your bank.
“Data is a precious thing and will last longer than the systems themselves.”

Tim Berners-Lee, CERN & Inventor of the WorldWide Web
What do our customers want and need?

- **Scalability**
  Efficiently manage data throughout its lifecycle

- **Productivity**
  Unlock and access data for optimal querying and reporting

- **Competitiveness**
  Extract value from data to enable customer-centricity
Market background

The volume of transactions processed by banks’ systems has significantly increased as an ever-larger proportion of payments and transfers are done electronically. Concurrently, the volume of queries processed by banks has vastly increased as customers can check their banking data at any time from any device. By some accounts, the ratio of queries to transactions could increase from 5:1 to 500:1.

Managing all of this data can be very costly and complex

If the bank does not have the tools and architecture to efficiently manage the masses of data produced by queries and transactions, it cannot scale its business properly, putting its profitability and competitiveness at risk. The bank also becomes exposed to longer recovery times from failure (MTTR) and, thus, to reputational and regulatory risks.

Accessing and querying all this data becomes slow and cumbersome

Data models in core banking systems are usually optimized for processing transactions rather than queries. Because query processing is not optimized, both bank users and end-customers can experience poor response times to their informational and reporting queries. Also, the system has to work harder to address queries, which further reduces the ability of the system to efficiently process both queries and transactions. This prevents the bank from having a real-time view of its business and also damages the quality of the customer experience, putting the bank at competitive risk.

Feeding it to analytics tools in a timely manner becomes difficult

Finally, banks’ operational data models often are not properly integrated with their business analytics solutions. Instead they feed their analytics tools through a cumbersome batch process during which many things can go wrong and which only occurs once a day or less. The absence of seamless and real-time integration puts the bank at a real competitive disadvantage as the value of intelligence produced by analytics tools depends largely on the timeliness and quality of the data input.
Value proposition

“The Data products provide banks with a **unified data platform** that helps them deal with the massive data volumes of the digital banking era. They enable banks to **efficiently manage** their data; **unlock and easily access** their data in near-**real-time**; and, **extract value** from their data to achieve **customer-centricity** by exploiting it with near-real-time predictive analytics and modelling tools.”
**Business benefits**

Temenos’ Data products make the bank much more scalable, productive and competitive. Ultimately, they enable the bank to offer a much enhanced experience to business-users and customers while remaining profitable.

**Scalability**

Temenos’ Data products enable the bank to process massive volumes of transaction and query data in a cost-efficient manner, even when business volumes are growing very fast. The Data products achieve this principally in two ways. Firstly, by automatically separating aged transaction data out of the live database, to prevent the database from bloating and slowing. Secondly, by separating out where transactions and queries are processed, in order to optimize both. The principal business benefit here is **scalability**.

**Productivity**

The Data products provide business decision-makers in the bank with advanced near-real-time reporting capabilities, and provide customers with a highly responsive banking experience. The Business Reporting Models support large volumes of online and complex queries (e.g. “as-was”), providing new and value-adding perspectives in a timely manner. The models can be readily exploited by most world-class reporting tools, enabling business users to focus on making good decisions instead of on finding the right data. The principal business benefit here is **productivity**.

**Competitiveness**

Thirdly, by integrating in near-real-time the query-optimized Business Reporting Models with Temenos’ Analytics solution, the Analytics Integration product enables the bank to be much more customer-centric. The bank can leverage the latest developments in business analytics (e.g. predictive and prescriptive customer analysis) and exploit its Analytics solution to the fullest. As a result, the bank can offer a highly tailored and proactive customer experience. The principal business benefit here is **competitiveness**.

The bank can achieve these benefits in very little time and very cost-efficiently. The products are easy to deploy and run as a seamlessly integrated solution, causing no disruption to day-to-day business and generating near-immediate business returns.
Why customers use it

- **Scalability**
  Shrink your live database to preserve performance

- **Productivity**
  Harness near-real-time reporting capabilities for decision-making

- **Competitiveness**
  Enhance customer-centricity by exploiting real-time analytics

- **Efficiency**
  Automate data management throughout the data lifecycle
Products and key features

- Data Lifecycle Management
- Business Reporting Models
- Analytics Integration
Data technology

Business Reporting Models
Exploit query-optimized data models to enable massive query volumes in near-real-time, to better support business decision-making and increase responsiveness to online customer queries.

Data Lifecycle Management
Reduce the size of your Core Banking transaction database and automate the lifecycle management of your data, in order to preserve the performance and profitability of your business.

Analytics Integration
 Seamlessly integrate your Business Reporting Models with your Analytics solution, to enable advanced near-real-time business analysis and become truly customer-centric.
The Data Lifecycle Management product enables the bank to efficiently manage its Core Banking data while preserving easy access (unlike with traditional archiving) to all data for query purposes.

It also prevents the Core Banking transactional database from bloating and degrading both transaction and query performance. Upon deployment in tests at a Tier 1 bank, Data Lifecycle Management reduced the Core Banking transactional database size by 70%.

Features:

- Exploits a Lifecycle database which is separate from the Core Banking Transactional database but with a similar structure and which preserves easy query access to data.
- Aged (non-volatile) data is moved to the Lifecycle database using a configurable and automated data transfer process.
- Aged data moved into the Lifecycle database can be partitioned according to its age and automatically archived out to a regular low-cost archive when its partition reaches a certain age.

*Configurable items include: retention time in Transactional database, timing of data transfers to Lifecycle database, objects to be included, partition timespans in Lifecycle database, timing of archiving.
Products & functionality

Business Reporting Models

The Business Reporting Models improve access to data for queries and reporting by bank users and customers, by providing a series of query-optimized data models which are updated in near-real-time with the latest transaction data. To maximize business value, the models are aligned with Temenos’ banking Suites and cross-functional Core Banking capabilities.

Features:
- Provide full history of data changes, enabling comprehensive “As-Was” and “As-Is” reporting
- Let banks answer “What’s new?” and “What’s changed?” based on near-real-time information
- Define Core Banking business events and data to extract in near-real-time via Integration Framework
- Based on standard “Star Schema” dimensional models which provide new perspectives
- Provide pre-configured mappings, queries and reports, which can be re-configured by the bank
- Capture fact data at the atomic level to ensure data is available to answer future queries
- Fully extensible within their respective domains, allowing any customization to be captured

Upcoming capabilities:
- Process Workflow SLA reporting and more
- Ad-hoc data: SQL tables for richer reporting sets

Available and upcoming Models

- **H1 2016:** Customer Account Balance and Transactions (customer accounts, balance information, statement transactions)
- **H2 2016:** Financial Data (Balance Sheet, P&L, General Ledger, Contract Balances, Multi-GAAP and post-closing reporting)
- **H1 2017:** Suite models and more

(Future dates are indicative and may be subject to change)

Boosting productivity by unlocking data and making it accessible

- Core Banking Transactional database
- Business Reporting Models database
- XML, LSQL, DML

Upcoming Models:
- H1 2016: Customer Account Balance and Transactions
- H2 2016: Financial Data
- H1 2017: Suite models and more
Products & functionality

Analytics Integration

The Analytics Integration product uses the Business Reporting Models as the source of data which is fed in near-real-time to Temenos’ Analytics solution. The bank no longer relies on delayed, cumbersome data batch transfers from the Core Banking system to feed its Analytics solution. As a result, the Analytics Integration product enables the bank to extract value from its transaction data in a timely manner and obtain actionable insights that enhance the business’ customer-centricity.

By clearly separating the operational reporting database from the analytics database, this product enables the bank’s Analytics solution to focus on performing complex analytics (instead of basic reporting).

Features:

- One version of the truth: data for the Analytics solution is sourced from the Business Reporting Models which are in turn sourced from business events in the Core Banking system
- Data is automatically extracted from the Business Reporting Models and fed to the Analytics solution in near-real-time
- Provides the foundations for keeping up with future developments in business analytics capabilities

Read more about Temenos’ business Analytics solutions the Temenos website under Products > Analytics.

Temenos’ Analytics solutions leverage Temenos’ Data products to help banks extract maximum value from their data.
Building a unified data platform

By deploying Temenos’ Data products and Analytics solution, the bank gets a unified data platform which turns data into knowledge and wisdom, maximizing value for the bank and its customers.

Data technology

By deploying Temenos’ Data products and Analytics solution, the bank gets a unified data platform which turns data into knowledge and wisdom, maximizing value for the bank and its customers.

Temenos’ Analytics solutions leverage the Data products to help banks extract maximum value from their data.

Read more about Temenos’ business Analytics solutions the Temenos website under Products > Analytics.

Core Banking system

Data Lifecycle Management
- Scalability
  - “Preserve transactional performance”
- Efficiency
  - “Manage data efficiently”

Core Banking Lifecycle DB
- XML

Core Banking Transactional DB
- XML

Business Reporting Models
- Productivity
  - “Unlock & access your data”
- Information & Knowledge ($$$)

Business Reporting Models DB
- SQL

Analytics Integration
- Competitiveness
  - “Extract value from your data”
- Wisdom ($$$$

Analytics DB
- SQL

Near-Real-Time

Reporting tools & digital queries

Scalability

Efficiency

Productivity

Competitiveness

Data (§)

Information & Knowledge ($$$)

Wisdom ($$$$

Temenos’ Analytics solutions leverage the Data products to help banks extract maximum value from their data.
Benefits summary and proof points

**Scalability**

**Productivity**

**Competitiveness**

70% reduction in the size of your transactional database while preserving access to all the data*

Real-time operational reporting and business analytics

(* Proven in tests at a Tier 1 bank)
Summary

Temenos’ Data products enable banks to insure themselves against the challenges of data growth, better support decision-making at the bank and customer digital queries, and become more customer-centric and profitable.

Next steps

To hear more about our Data products, contact us at sales@temenos.com

Temenos Group AG (SIX: TEMN), headquartered in Geneva, is a market leading software provider, partnering with banks and other financial institutions to transform their businesses and stay ahead of a changing marketplace. Over 2,000 firms across the globe, including 38 of the top 50 banks, rely on Temenos to process the daily transactions of more than 500 million banking customers. Temenos customers are proven to be more profitable than their peers: in the period 2008-2014, they enjoyed on average a 31% higher return on assets, a 36% higher return on equity and an 8.6 percentage point lower cost/income ratio than banks running legacy applications.

©2016 Temenos Headquarters SA - all rights reserved.
Warning: This document is protected by copyright law and international treaties. Unauthorised reproduction of this document, or any portion of it, may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under law.