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**White Paper | Benefits of Payments Business Intelligence****INSIGHT INTO CURRENT PAYMENTS BUSINESS ISSUES INCLUDING:**

- Forces driving changes in the worldwide payments market
- What executives must know about their payments business
- Solutions to gain visibility into the payments business
- Benefits of clarity in the payments business
- An action plan to improve the payments business bottom line

## White Paper | Benefits of Payments Business Intelligence

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- Forces driving the payments market
- What executives should know
- Solutions for payments business intelligence
- Payments insight to improve business

### Preface

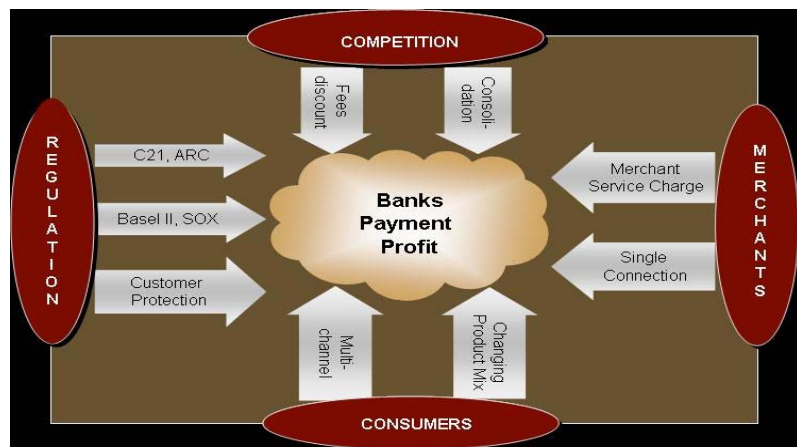
Imagine having the insight to make the right decisions on payment fees, consolidation and outsourcing strategies, and payment products that result in the best bottom line results for your banks' payments business. Critical to making the best decisions is visibility into the volumes, costs, revenue, and trends across a consolidated view of the enterprise payments business. A payments data warehouse with business intelligence and analytic reports provides the visibility necessary to make the best payment business decisions.

The Financial Insights' report Enterprise Payments – Assessing the Concept, states that “Banks are increasingly focusing on their payments infrastructure as an under managed and underutilized resource that is ultimately responsible for up to 40% of their revenues.” Clearly anything responsible for this much of a bank's revenue warrants attention.

### Forces Driving The Payments Market

Your customers expect the same level of speed, service and visibility when they make or receive payments as when they ship or receive packages. Specifically, they expect money to be transferred quickly and securely, and to know when, where and how it is being transferred. At the same time, banks must meet new payment and data security regulations, including Check 21, NACHA rules promoting check conversion to ACH, Single European Payment Area (SEPA) and Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET) while reducing the time and cost of payments processing. Fortunately, many of these new regulations have removed restrictions and opened the door for faster, better, smoother payments processing.

Additionally, a host of competitive and technology trends such as volume shifts and electronification makes enterprise payments an even more complex challenge and threatens overall profitability. For many banking innovators and leaders success starts with the right enterprise payments strategy, one that drives clear visibility into interconnected processes and costs across payment silos – from payment capture to cross-border payments, from check truncation to anti-money laundering.



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A critical early step towards an enterprise payments strategy is an understanding of your payments business. Modeling and monitoring changes in payment volumes and associated fee revenue and processing costs provide insight into the bottom line for your payments business. As the March 2006 Gartner report Payment Hubs Are the First Step in the Evolution of the Banking Payment Business states, "One of the first tasks of the new generation of payment architectures is to achieve a better use of the information generated by payments and other transactional activity." According to the same report, "Companies are reproaching their banks for a lack of transparency in the pricing of their payment services."

### What Executives Should Know

Most banks think that they know their payments business. They must since it may represent as much as 40% of their revenues, right? But do bank executives really know their payments business across the enterprise? Are they aware of how it is performing and transforming at any point in time, and are they ready to make informed decisions? BITS is the Technology Group for The Financial Services Roundtable. At a BITS forum, Webb Edwards, Wells Fargo's EVP overseeing technology operations, communications systems and payments strategies at the time, stated that bank executives should be able to answer these questions about their payments business:

- If asked for a consolidated view of how payments fall to the bottom line of my company is it available and would it be accurate?
- If two or more of my businesses had a conflict about payment direction, would I know it and would I have the ability to make a direction call based on financial facts?
- Who can sit down with me and describe our payment core competencies and how do they fit into our business strategies?
- Who is examining our existing infrastructure and planning our strategies for maintaining or growing fee income at existing or improved margins?
- What measurement and incentive systems need to be changed to build collaborative decision making across the enterprise?

How can bank executives gain insight into their payments business and make decision based on financial facts? According to the July 2005 Financial Insights report, How to Get to the Promised Land: Alternative Pathways to Enterprise Payments, "The simplest solution, creating a 'payments council' or 'payment czar', will not succeed unless it is accompanied by real authority over the payment silos and their budgets. Creating a single payments database for management and reporting purposes is a positive step forward, in that it can be turned into a product as well."

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Several leading banks have recognized the need to better understand their payment business and address improvements in it holistically. A leading bank in the Southeast U.S. formed a Payments Think Tank with the following goals:

- Bring senior level managers together to form a comprehensive, cohesive view of issues surrounding the payments systems.
- Eliminate further erosion of financial institution's control of the payment systems.
- Ensure the bank is addressing payment system issues in a holistic fashion rather than a product-by-product basis.
- Develop an understanding of the economics of various payment types at the bank.
- Determine ways to maximize the profitability of payments at the bank.
- Continuously measure and document the costs, revenues, and service quality of payments and compare findings to available Industry data.

This bank also had some questions that they felt bank executive must be able to answer about their payments business including:

- Can you gather all the required data for each payment type? (cost, revenues, quality, timeliness, productivity, etc.)?
- Do you know how clients use your payment products and services?
- Do you understand your banks' core payment competencies, core products, and how market/client process changes will affect them?
- Does your CEO truly know the importance of Payments?

So, how do bank executives achieve visibility into their payments business? According to the Financial Insights July 2005 report, "A Key Element of Enterprise Payment Solutions: Reporting and analytics. This consists of databases and reporting systems optimized for the following purposes: transaction monitoring and alerts, liquidity management, management reporting and analysis, and customer inquiry."

### **Solutions for Payments Business Intelligence**

To drive the best decisions for their bank, bank executives need to get better payment business intelligence to make informed business decisions. Because various payment types such as check, ACH, Wire Transfer, Credit Card, Debit Card, and Stored Value Cards have evolved over time as independent silos, it is very rare that a bank has an integrated, accurate, and continuous view of their payment business. As a consequence, they don't know how their decision may affect the business.

In a recent example at a top 10 US bank, the checking account statements being mailed to customers included statement stuffers from the various payment silos. One encouraged the customer to adopt online bill payment. Another promoted direct account debit for bills. A third

offered bill payment on the bank-issued credit card. All advertisements implicitly discouraged bill payment by check. Such conflicting silo-driven advertisement is confusing to customers and demonstrates a lack of payment insight on what is best for the bank's payments business and its customers.

### **Start by Collecting Payment Data in a Common Place**

Most payment data is collected in the payment silos today. There are payment silos for retail checks, corporate checks, ACH, Domestic Wire Transfer, International Wire Transfer, Credit Card, Debit Card, and emerging Stored Value Cards. Any reports or analytics are typically at a point in time on the payment data for the payment silo.

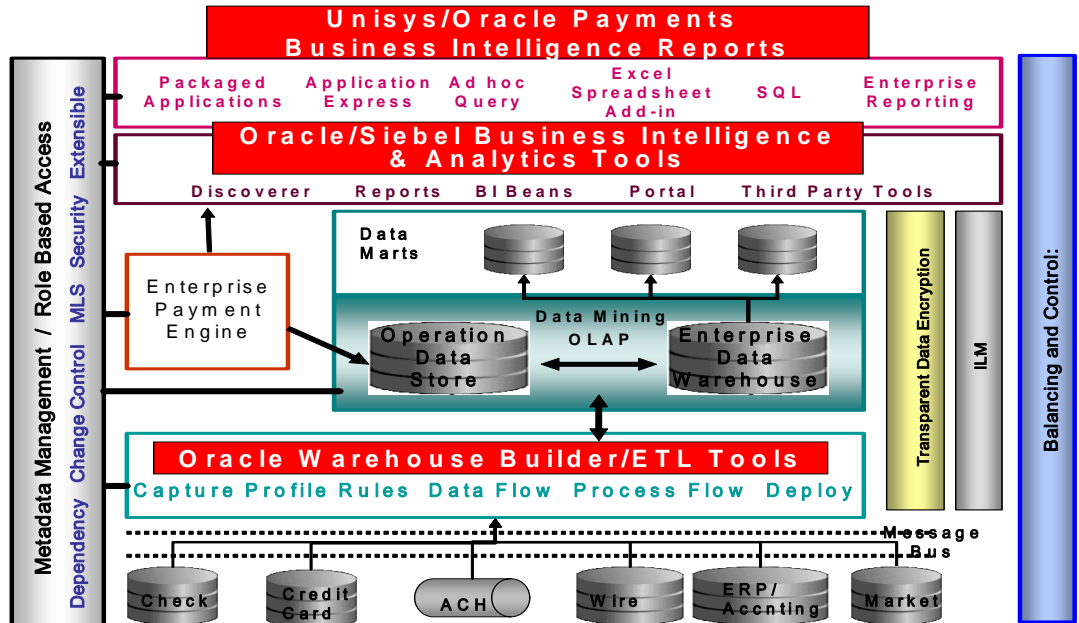
Yes, you may be able to get transaction counts, monetary totals, and research individual transactions, but you cannot analyze cost and revenue factors associated with the transactions to determine profitability. You can't see volume and profitability trends by payment type over time, by geography, or by customer type. You can't perform customer segment payment profitability analysis across all payment types. Why? Because the payments data is collected and reported in silos, and there is little cost, revenue, region, or client data associated with the payment transactions.

### **Implement a Payments Data Warehouse**

A payments data warehouse that collects all payment transaction data for all payment types over time can provide the start of the solution. It needs to include more than just the payment transaction. Dimensions such as the payment origination point, processing method, associated cost and revenue with the transactions at that point in time and in that regional location need to be included. The client segment, region and client identifier need to be recorded. A secure audit trail of all processing steps for the payment needs to be recorded.

Unisys and Oracle have collaborated to apply Oracle Data Warehouse and Business Intelligence tools to create a Payments Data Warehouse with Payment Business Analytics that provides a solution. Oracle's Data Warehouse Builder automates the process of building and populating a Data Warehouse.

### Payment Business Intelligence Data Warehouse



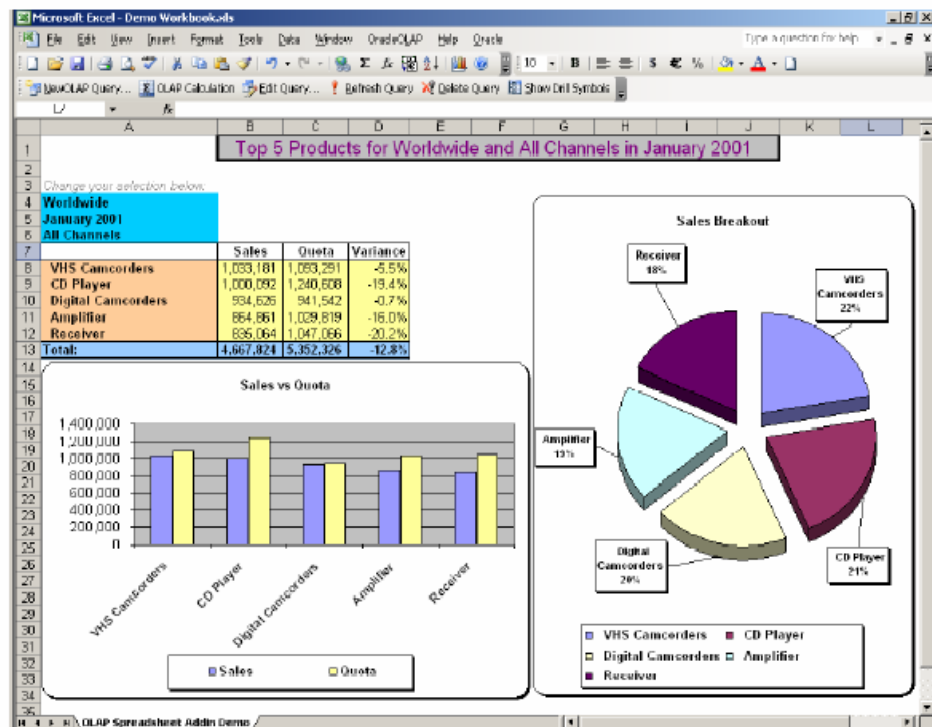
Oracle's Data Warehouse includes Extract, Translate, and Load (ETL) tools to populate the payment data warehouse from the payment silos and cost/revenue accounting systems. The data warehouse can be implemented to store large amounts of data from the multiple payment types over time, and include dimensions such as the geographic region, customer segment, and processing method. The ETL tools enable rule-based automated capture and process flow from the legacy data sources.

#### Maintain Privacy and Security of Payment Data

Maintaining the privacy and security of client payment data and enforcing authorized access is essential, especially with data from multiple payment types now consolidated in one database. New regulations such as SB1386 and industry imperatives like VISA's Cardholder Information Protection Program increase the obligations to protect sensitive client and payment data and corresponding penalties for not doing so. The Oracle Data Warehouse includes transparent data encryption features to keep data secure. Role based access control, change control, and audit trails can be used to ensure that only authorized access is provided to the data.

## Extracting Business Intelligence from Payment Data

Once payment transaction data and associated client and business data are stored in a common data warehouse, the stage is set to create business intelligence reports and a payments business dashboard. Unisys has applied the Oracle Business Intelligence (BI) tools to create a payments business dashboard and a base set of business intelligence reports from the payments data warehouse. The Oracle BI tools include capabilities to automate the data warehouse discovery process. Graphical BI tools are used to produce dashboards, graphs, and reports that can be integrated with web portals, spreadsheets, and enterprise reporting tools.



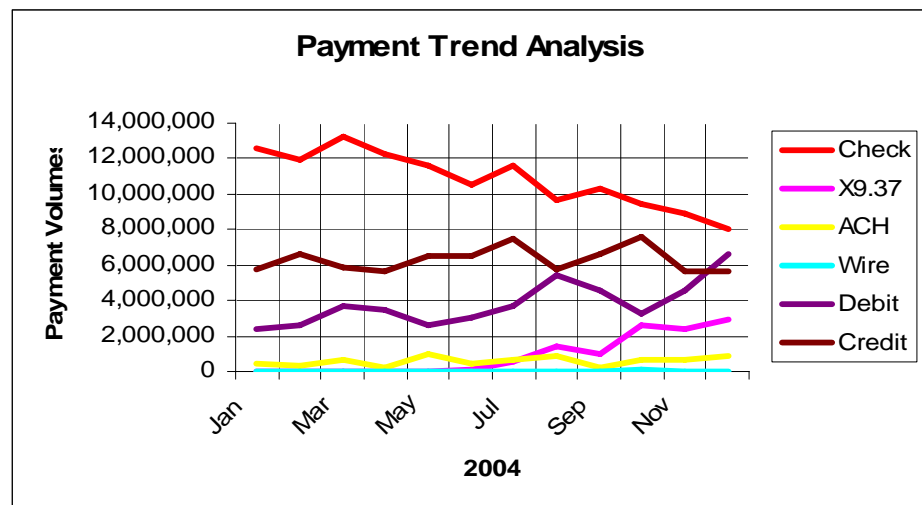
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Ad hoc payment research queries are supported. Dashboards, reports and graph displays can be updated in real-time to reflect the current state of the payments data. Trend reports can be produced by time, region, customer segment, and payment processing type. Best of all, the tools make it flexible enough to produce new payments reports in hours to meet new payments business intelligence needs.

### Payments Insight to Improve Business

The payments business intelligence reports and analytics should be available at any point in time and should operate on a holistic and up-to-date view of all of the payments data. The reports and payments dashboard should provide the intelligence necessary to make informed decisions on the payments business based on financial facts such as:

- Customer usage trends including the volume, channels used (branch, online, mail, ATM, VRU, Phone), type of payment (Check, ACH, Debit, Credit, Wire, Account-to-account, International versus Domestic), and average payment value by type and channel.
- Fees/revenue by channel, payment type, and processing method.
- Costs by channel, payment type, and processing method (e.g. checks processed as paper, converted to ACH, processed as Image Replacement Documents (IRDs) or images).
- Average payment processing time by channel and payment type.
- Customer satisfaction by channel and payment type.
- Periodically updating dashboard of payment incoming, processing, and outgoing item and \$ volumes.
- Analytics and trends such as most profitable customer segments, geographies and payment types used by customer segments.



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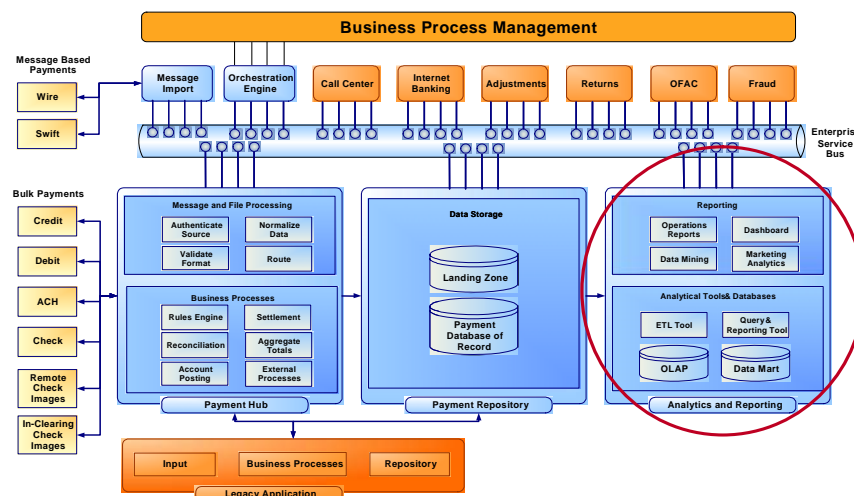
There are many more business intelligence reports possible once the Data Warehouse is established. Some of the desired reports mentioned by banks include:

- Payment \$ volume by payment type by quarter, average transaction \$ amount by type.
- Revenue/profit by payment type by quarter, number of payment transactions per DDA account by transaction type per month.
- Payment volumes by type and by line of business (retail, small business, wholesale).
- Check processing trends of paper versus IRD, versus image exchange, and versus ARC clearing.
- Profitability of card transactions by merchant, by SIC code by quarter, profitability of merchants by geographic region by quarter.

### Actions to Improve the Payments Business Bottom Line

The payments business is transforming. Consumer payment behaviors are changing. Consumers are writing fewer checks, instead they are paying bills online, transferring money from the U.S. to India, China, and Mexico, and expecting timely, visible, and low cost payments. Existing competitors, such as First Data Corporation, Western Union, and MoneyGram are getting stronger as the volume of electronic payments increases.

## Payments Data Warehouse and Business Intelligence as Part of an Enterprise Payment Hub



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New competitors, such as Paypal and Walmart are emerging. Corporations are expecting intelligent, visible, and timely payments at a fair price – they are not expecting fees to make payments within their own corporation. After trying for years to get a full-service bank, Walmart scaled back its ambitions last summer and asked regulators for permission to simply process electronic payments. The goal is to save money by cutting out third-party payment processors.

Regulations are changing the payments landscape and the payment mix is impacting revenues. Debit card transactions are replacing checks and putting non-sufficient funds fees from checks at risk of declining. Check 21 permits checks to be processed as images, and ARC allows checks to be converted to ACH, changing the cost dynamics. SEPA requires fees for domestic and international payments within the Eurozone to be the same.

One thing is clear: if banks do not make the right decisions to adapt to the transforming payments market, the payments business mainstay of their revenue and profits will be a risk. So what is a bank to do? As described in this paper, a critical first step is to implement a payments data warehouse across the enterprise and create business intelligence reports and analytics that provide continuous visibility into the payments business.

In addition to implementing a robust, enterprise-wide payments warehouse with analytics to guide informed payments business decisions, banks must adapt the organization and processes to respond to the transforming payments markets. Some recommendations include:

- Charter and empower an enterprise-wide payments steering committee with CEO sponsorship.
- Adjust internal accounting, payment product siloed organizations, and compensation structure to support an enterprise payments business.
- Begin consolidating infrastructure, process, and labor redundancies across payment silos.
- Design and evolve your payment infrastructure around a hub based on a business component architecture, including services and events.
- Expose the newfound visibility of payments processing to customers for payment tracking.
- Make payment fees transparent to customers and commensurate with the cost and value of the service.

### **Oracle-Unisys Payment Analytics**

The Oracle-Unisys Payments Business Intelligence Solution provides business analytics based on a payments data warehouse. The solution enables consolidation of customer and payments data from multiple sources including payment transactions, customer information, cost and revenue data. The data warehouse supports reporting and analysis for payment business performance, customer profitability, and risk management. Pre-defined business intelligence reports, and tools to easily produce additional reports and analytics, are included with the solution. The benefit gained from Oracle-Unisys Payments Business Intelligence Solution is greater insight into your payments business to enable business decisions that drive revenue growth as well as improved business agility, lower costs, and reduced risk and liability

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