



CBX 3.0 - Delivering Superior User Experience

INSIDE

■ LIQUIDITY

■ TRADE

■ TREASURY

■ PAYMENTS

■ CBX 3.0

■ HUBS

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FOREWORD



Arun Jain

Chairman and CEO
Polaris Software Lab Limited

Dear Reader,

We are in the threshold of a new era of banking - an era in which banking primarily focuses on superior customer experience through the use of customer-centric innovative solutions to form a unique brand perception. We call this Banking 3.0. The coming years will see banks promoting 'self service' with their customers wanting to 'control their destiny'. Such transformation calls for modernization of legacy systems. Despite Progressive Modernization, financial institutions continue to grapple with challenges due to multiple complexities. The way forward is through Continuous Migration. The new era of banking primarily focuses on superior customer experience through the use of customer-centric innovative solutions to form a unique brand perception.

At Polaris, we take great pride in continual innovation in Financial Technology, and it starts from our definition of what we do. And it is this innovation that we demonstrated at Sibos 2011 in Toronto - Polaris launched Intellect™ Customer Business eXchange (CBX) 3.0. Intellect CBX 3.0 is built on unparalleled depth of domain knowledge, a strong belief in the advantages of Service Oriented Architecture and demonstrated outcomes for the primary purpose of expanding a bank's ability to generate more transaction and fee based income. To provide a unique and superior banking experience, banks and financial institutions can utilize CBX and provide customers with a single entry into the complete suite of products and services. This secure and robust framework will undeniably revolutionize the new era of Banking 3.0.

We also showcased the Intellect GTB M180 - the Polaris Global Transaction Banking suite.

Polaris' capability to also deliver seamless solutions on time and in full makes it the chosen technology partner for 9 of the top 10 global banks and 7 of the 10 top global insurance companies.

This Corporate Banking special issue of Fintellect highlights the solutions showcased at Sibos 2011. It elucidates our prowess in these domains through solution-specific case studies and the benefits that these solutions offer clients.

We believe that value creation in a technology relationship grows as customer relationships mature with time. Relationship, expertise, technology, Intellectual Property and Global Reach are the routes that enable the company to come closer to its customers worldwide.

This issue also has a gallery showcasing Polaris at Sibos 2011.

Happy Reading!

Arun Jain

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CONTENTS

| | | | | | |
|----|--|---|----|--|--|
| 1 | | Expert Speak Application consolidation 'may' be the panacea for the BFSI sector today! | 22 | | Treasury |
| 3 | | CBX 3.0 | 25 | | Leading financial services firm chooses treasury solution to handle 2.5 million transactions per day |
| 7 | | Leading insurance major in UK chooses Intellect CBX as decision support solution | 27 | | Polaris provides legacy modernization service to one of the largest global banks |
| 9 | | Polaris designs major iPhone applications for UK based wealth management company | 28 | | Payments |
| 10 | | Liquidity Management | 31 | | Polaris provides uniformity of service offering across geography for the world's third largest bank |
| 13 | | Leading bank and insurance group in UK chooses Polaris' liquidity management solution | 33 | | Leading bank in US chooses Polaris to manage payments infrastructure |
| 15 | | Polaris provides financial services major liquidity cash concentration and investment option | 34 | | Hubs |
| 16 | | Trade | 37 | | Large European bank implements Intellect Payment Service Hub |
| 19 | | Leading global bank chooses Polaris' trade finance and online corporate banking platforms for trade, cash and payments | 39 | | White Paper Mashing up the portal |
| 21 | | Polaris successfully delivers trade finance solution to two leading commercial banks in APAC region | 46 | | Analyst Speak |
| | | | 49 | | Spot Light |

EXPERT SPEAK



APPLICATION CONSOLIDATION 'MAY' BE THE PANACEA FOR THE BFSI SECTOR TODAY!



Dr. Guru Raghavan
Vice President &
Principal Domain Consultant
Investment Banking and
Capital Markets

The world is changing fast and lot more changes are taking place in IT and in BFSI vertical. In addition the demographic changes are dictating terms in the market place that traditional bankers would have found hard to visualize. The future scheme of things is definitely looking very complicated. Adding to the complexity is the presence of multiple applications in multiple regions (or geographies) requiring the bankers to spend more time and cost. There is a need to move away from as many applications as possible and this can be achieved only through integration and simplification.

The presence of these multiple applications in multiple geographies in the same bank is contributing to yet another issue – varying end user experience. The customers of the same bank experience varying standards of service element and this affects badly the very image of the bank. This requires the banks to transform these multiple applications into manageable numbers – from business functions / processes, lines of business, geographies and finally strategic initiatives angles.

It is learnt that some of the largest banks hold huge number of application portfolios – say for example, 11,000 to 12,000 applications in Bank of America and 7,000 to 8,000 applications in JPMC. (Source: Chris Skinner's blog 'Heard the Word from Hurd Oracles Strategy for Banking Markets')

The motivation for these banks to go for application consolidation could be ease of business operations and increased operating profits. Application rationalization is easily the best baby step these banks can attempt as there are a number of applications first and second, banking business basically is the same wherever they are. Therefore this proposition appears to be a very attractive one. Once this consolidation exercise is comprehensively completed, it would be easier for the very banks to get into any new location as fast as one can. Having laid the rationale behind the application consolidate let us get into the nitty-gritty of this exercise.

Perspectives of Consolidation

Some of our banks have multiple applications to handle the same business function and process – either due to legacy regional approaches or regulatory requirements or due to mergers and acquisition. One can look at the consolidation exercise purely from a business function and process angle. One can also look at consolidation from geographic considerations – working on a global application or manageable number of regional applications. In addition to these basic angles, the present trend is to look at consolidation from strategic initiative angle – to retain or fold or to consolidate the business. To attain higher business volumes and values, therefore, it is important to explore analysis of portfolio of applications.

Objectives of Consolidation

As seen above, each business unit in the same bank has multiple applications and in addition, these applications overlap among other business units as well. There is a strong business case for a consolidation exercise to rationalize them within each business units. The objectives could be rationalization of overlapping applications among Business Units, rationalization of applications within each Business Unit, decommissioning applications which are rarely used or obsolete and retaining or replacing with more efficient applications which are specific to the Business Unit and has no overlap either with the Business or other Business Units

Functional Analysis for Consolidation

Banking business per se is function or transaction oriented business. In an ideal consolidation exercise, the repeat of the number of same function/process or same transaction is looked into first to draw out a complete list of such functions. Thereafter, the criticality of each of these functions/processes is looked into, categorized and variance analysis is drawn. Less critical functions/processes are either dropped or combined to reduce their numbers. The strategic business initiatives are also crucial inputs for arriving at such target or future state functional requirements.



Technical Analysis for Consolidation

Technology assessment is the starting point for technical analysis for consolidation. After this, target architecture is arrived at taking into consideration the revisited functional specifications as above. While arriving at this future state or to be state requirements, strategic business initiatives are also reckoned. To reduce time and efforts leading to cost control, scope of reuse of extant technology pieces or frameworks would be explored and exploited to the maximum extent.

Financial Analysis for Consolidation

Last but not the least, financial analysis would include arriving at projected cash flows, payback period, internal rate of return and return on investment. This analysis is very important for the decision makers as without this essential analysis the consolidation exercise would be incomplete and may not be worthy of consideration. In addition to facilitating business requirements, consolidation exercise is expected to result in direct reduction of 'Business As Usual' Cost.

Value Parameters for Consolidation

Thus In short an ideal consolidation the parameters for consolidation would include functionality coverage, performance, standardization index, complexity reduction, reliability and commercial viability

Different Phases in Consolidation

Different phases in Consolidation are C D O – Consult to Consolidate, Design to Deploy and Operate if it is internally funded. Most of the present consolidation exercises are run on this model. One can even think of C D O R T – Consult & Consolidate, Design & Deploy, Operate, Recover and Transfer wherein the service provider could fund the investment upfront and recover the investment over a period of time after consolidation. Hosted models may also be evolved if the concept matures.

Factors Influencing Consolidation

Some of the factors influencing consolidation are increasing competition, rise of emerging markets, rapid change in customer preferences, Join the community dialogue demand for uniform end user experience, more complex supply chains, growth of online business, growth of social media, volatile economic environment, fast changing regulatory environment, changing technologies, demographic changes and cost consciousness.

Benefits of Consolidation

Some of the benefits of consolidation are reduced cost, new markets entry, revenue growth, information security, creation of new products and services, ensuing regulatory compliance, securing financial stability, effective risk management, business processes streamline, adapting to new business strategy, increased competitive advantage, improved business efficiency, effective internal collaboration and operation, anywhere / any time secure access, enriched customer engagement and uniform end user experience.

One may now agree that application consolidation 'may' be the panacea for all ills of the BFSI sector.

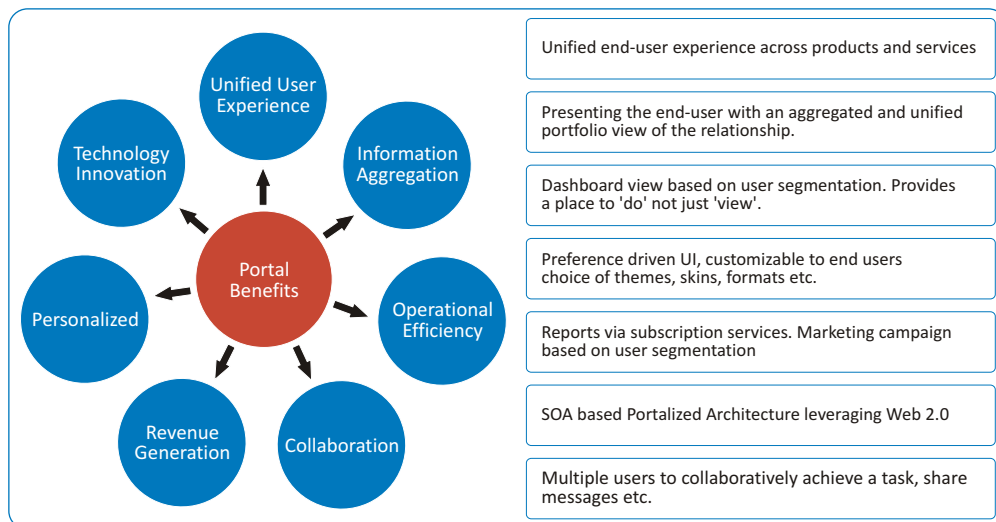
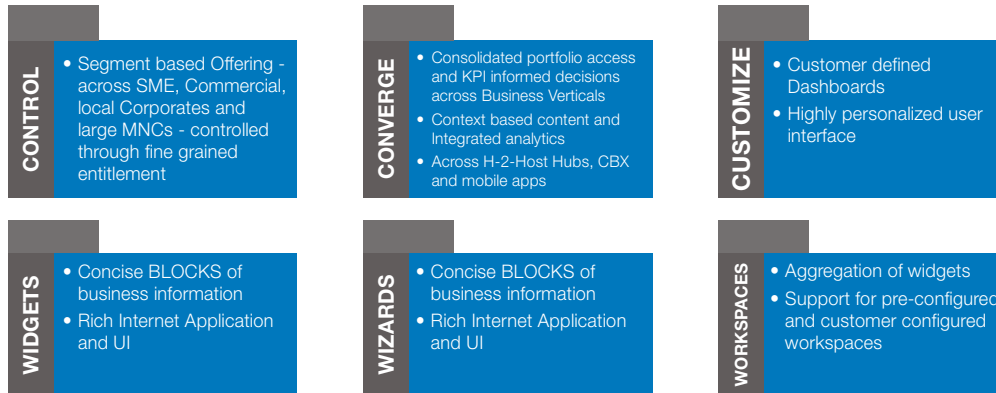
There are two types of technology players in the market place to cater to the needs of Banking and Financial Services Industry. They are pure 'Financial Technology (FT) players' and the other 'Generic Technology (GT) players'. FT player by virtue of his/her hold on the BFSI domain will be in an advantageous position to understand the financial landscape and virtually can architect the financial model for the line of business under service. S/he will then get into a discussion mode with his/her customers to identify and understand exact functional requirements and characteristics. Surely FT player can deliver a higher value to the customer when compared with a GT player who will expect the customer to spell out what s/he wants.



CBX 3.0

Enables transaction services and information exchange for a 'mix and match' combination of Intellect GUB

SOLUTION OVERVIEW



Intellect CBX USP

“One provider that is offering a comprehensive portal framework that closely matches the vision of most leading banks is Polaris Software Lab.” - Tower Group Report



Intellect CBX 3.0 is a widget based, integrated, agile and informed decision-making solution that provides superior multi-channel customer experience delivery. Designed for the Global Transaction Banking (GTB) platform, the latest version of CBX will provide banks with an architecture that will enable them to add new products with ease. Its frictionless ability to integrate with the back-end product processors would allow banks to offer more products per customer.

Built on the industry standard J2EE framework with highly parameterized and component based design, CBX 3.0 offers better scalability and easy integration with existing systems in the bank as well as corporate ERP systems.

Work Canvases

CBX 3.0 can deliver superior user experience and increased productivity owing to its configurable dashboards in the form of role-based 'widgets' which correspond to business sub-verticals and encourage contextualized and effective action, offering superior work canvases. Some of the key features of the solution include:

- Contextual Relevance: Helps in knowing options before executing a transaction
- Business Relevance: An intuitive front-end platform giving instant access to multi bank cash concentration, cash forecasting and real time consolidated view of accounts
- ■mplicity and Convenience: Helps schedule, modify a payment (or any event) anytime with smart data entry fields

The first version of CBX was launched in SIBOS 2009, offering the most comprehensive products across the wholesale banking spectrum. CBX 3.0 was launched in 2011 as a highly modular and flexible platform that enabled banks & financial institutions offer products online as a point solution or offer a complete range as an integrated or unified portal.

CBX Modules

- **Treasury CBX:** A simplistic yet vital suite of Treasury and Investment services with ability to integrate with Online Rate Servers
- **Claims CBX:** An end-to-end Claims Management solution built using pre-built SOA Business Components
- **Liquidity CBX:** Enabling bank's customers to manage liquidity and cash management life-cycle through ready to use components
- **Custody CBX:** Cross geography, multi depository, multi-instrument support
- **Remittance CBX:** Fully integrated Solution with Straight Through Processing enabling Multi-currency and Cross-currency transfers

HIGHLIGHTS

Enables Multiple Business Lines

Provides corporate customers single entry into a whole suite of Cash Management, Payments, Trade Finance, Treasury and Business Banking functionalities

Rich Horizontal features across Business Lines

Built on the industry standard J2EE framework with highly parameterized and component-based design for better scalability and easy integration



CASE STUDIES

A woman with blonde hair is looking upwards and pointing her right index finger towards a floating, semi-transparent rectangular button. The background is a plain, light-colored wall. There are several other similar floating buttons of various sizes and positions scattered across the upper half of the image.

**Dashboard view based on user segmentation;
Provides a place to 'do' not just 'view'**



LEADING INSURANCE MAJOR IN UK CHOOSES INTELLECT CBX AS DECISION SUPPORT SOLUTION

Innovative use of SOA solved the business problem and resulted in a platform that could be used for other initiatives

The client is a leading Wealth Management and Life Insurance provider in UK having more than 400,000 customers. The primary focus is on Wealth Management Services (such as Investments, Retirement Planning) and in addition they also provide Life Insurance and Pension Services. Their business revolves around customers and the study of their preferences, that would help the company in taking business related decisions.

The client was finding it difficult to manage and group data storage in different sources and in manually extracting data. The concern area for the client was to deep dive into client data to drill down details and generate reports.

Polaris designed the solution by using MS SQL Server Integration Services (SSIS). This helped to extract, cleanse, transform and load data across different data source systems into one location for easier reporting. Innovative use of SOA helped to solve the business problem resulting in a platform that could be leveraged for other initiatives as well.

After going live with the Polaris solution, client was able to reduce Total Cost of Ownership (TCO) due to the reduction in the current system maintenance costs and ensured longer shelf-life of the proposed system. Data integrity and productivity increased with the reduction in manual processes and complexity in processes. Availability of timely reports helped client to make strategic business decisions in addition to a multi dimensional approach to client analysis that deciphers the client's propensity to specific product/service could be done.

HIGHLIGHTS

Reduction in the Total Cost of Ownership(TCO)

Longer shelf-life of the proposed system

Increase in Data integrity and productivity





**Enables partners and clients to access
business information on the move**



POLARIS DESIGNS MAJOR IPHONE APPLICATIONS FOR UK BASED WEALTH MANAGEMENT COMPANY

Solution provides the client's partners mobile data accessibility and seamless integration and simplified information exchange with existing back-end systems

The customer is a leading Wealth Management and Life Insurance provider in UK having more than 400,000 customers. The client's focus is on Wealth Management Services (such as Investments, Retirement Planning); they also provide Life Insurance and Pension Services.

The client wanted to develop iPhone applications with a rich and user-friendly interface for its partners to enable them to access business information quickly on the move. These iPhone applications would need to support various features such as Benefit Illustration System [BIS] and Insurance Service, and also needed to be extendable to CRM, Request Valuations and to a slew of other features. The application had to be extensible to the clients to access their respective wealth account information on the move.

Polaris' solution architecture has been developed to leverage existing enterprise resources that include data sources and middleware for secure data access and Polaris's Intellect Insurance components. Polaris provided seamless integration and simplified information exchange with existing back-end systems. This was done through simple web service calls for secure data access using Aqua Logic Data Services Platform. Apple predominantly provides a platform to Objective-C for development that supports open standards XML-based messaging structure.

The primary benefit of the iPhone application was that it enables partners and clients to access business information on the move. The applications provide vital information in a concise format on a mobile screen in the form of graphs and links to key reports such as Wealth Account summary. In addition to this it also provides a highly secure environment with the ability to use VeriSign token authentication system for the iPhone application data communication.

HIGHLIGHTS

Rich domain experience

Expert business technology pool

Proven methodology and process

Seamless integration and simplified information exchange





LIQUIDITY MANAGEMENT

Enabling banks' customers to manage liquidity and cash life cycle through ready-to-use components

SOLUTION OVERVIEW



Liquidity management has been viewed by many as a silo in treasury management in the past. But it has gained importance with the evolution of treasury in recent times. There is an increased demand for data and analytics that is required for better and increased visibility. On the front end, treasurers want more flexibility on how the data may be viewed and how they wish to configure their own dashboard to better manage cash and liquidity. On the back end, treasurers want more standardized solutions, and, somewhat, less customization of third party vendor solutions.

The Intellect Liquidity Management platform provides banks with a complete solution that it can offer to its corporate customers to optimize their cash position globally both at end of day, anytime during the day and even on demand. The platform offers the most comprehensive liquidity management functionality viz. sweeping, notional pooling, investment sweeps, intercompany balance tracking, cover control and cash flow forecasting and optimization.

It has been consciously designed to address these aspects from a corporate treasurer's perspective.

The Intellect Liquidity Management platform is rule based and parameterized and hence offers a faster time to market to roll out new products. Also key components are user defined leading to unparalleled flexibility while defining critical data such as interest. The solution is also modular in nature, thus banks may pick and choose components keeping in view their current available capabilities and appetite for implementation.

Intellect Liquidity Management solution has the following five key differentiators that distinguish it from other offerings in this area:

- Thought Leadership. Intellect Liquidity Management has been designed on an SOA backplane and has Security Layer, Workflow and Middleware, allowing banks to bring in new Technology, which considerably lowers their technology cost year on year.
- Banking domain expertise
- Latest Technology. Intellect Liquidity Management is probably the only solution in the market that is based on open Java standards (J2EE), runs on multiple app servers (Jboss, WebLogic, WebSphere, etc), multiple platforms (HP, SUN, IBM, etc) and a true multi-entity and multi-lingual application.
- Endorsement from analysts. Intellect platform has been consistently recognized by some of the leading analyst houses including Towergroup, Gartner, Forrester, Celent, etc.
- Experience of working with global tier one banks

HIGHLIGHTS

For a corporate treasurer managing global liquidity has three key aspects:

Centralization

Optimization

Maximization



CASE STUDIES



**Minimize costs and maximize liquidity thus,
sharpening the competitive edge**



LEADING BANK AND INSURANCE GROUP IN UK CHOOSES POLARIS' LIQUIDITY MANAGEMENT SOLUTION

The solution sharpens the competitive edge through enhanced flexibility in fund management

The client is a leading banking and insurance group in the United Kingdom. Its International Cash Management program (ICM) provides corporate customers the ability to maximize their liquidity management position by involving the review of bank account balances and transactions, generation and receipt of payments, and the concentration and pooling of cash in a number of countries to minimize cost and maximize liquidity.

A corporate strategy review identified International Cash Management as a key deficiency in the bank's suite of Corporate Banking products. In order to attract new business and retain existing customers the ICM program is implementing several costs and service enhancements to provide competitive edge in the marketplace.

Polaris through configuration and required customizations along with the building of interfaces deployed its unique standard product – Intellect Liquidity. The solution allows the client to take advantage of such factors as differential interest rates and reduce idle time of funds through manipulations of various interrelated accounts. The system also interfaces with existing and other systems that are deployed along with Intellect Sweep. Intellect Sweep provides the process of debiting or crediting source or control accounts from another account known as the offset or contra account in order to reach a certain balance. Various Sweep types are supported from traditional zero balancing, target balancing to the more specialized ones such as range based targets, percentage, etc. The system supports Credit Sweeps, Debit Sweeps, Range Balancing, Target Balancing, Range-based Target, Sweep Transfer, Percentage.

The unique functionality of Intellect Liquidity enables the client to attract new business and retain existing customers by implementing several costs and service enhancements. It aids in automated transfer of funds between accounts based on predefined rules for customers to maximize their liquidity management positions. Last but not the least, it allows flexibility in fund management by manipulating the balances in accounts as per requirements.

HIGHLIGHTS

Allows flexibility in fund management

Aids to take advantage of differential interest rates and reduce idle time of funds

Enables minimization of costs and maximization of liquidity thus, sharpening the competitive edge





**Improving business efficiency
to meet regional and global requirements**



POLARIS PROVIDES FINANCIAL SERVICES MAJOR LIQUIDITY CASH CONCENTRATION AND INVESTMENT OPTION

Solution improves client's business process efficiencies to meet regional and global requirements

The client is a global player in the financial services industry. It planned to develop its business in the Asia-Pacific region by procuring a state-of-the-art platform for Liquidity and Investments.

The client needed a global management tool to manage liquidity across regions. A regional liquidity flavor (Entrust Loans/Inter Company) along with loan tracking feature, multi-bank liquidity management solution offering unified solution to their global customers was required. The application should also support automated investments into investment vehicles.

Polaris offered the Intellect Liquidity Cash Concentration product and investment option with capabilities configured and parameterized to meet regional and global requirements. The solution enabled the client to service customers across continents. The application also aided with regional liquidity variants such as Entrust Loans.

The solution provided unique Automated Investment in Investment Vehicles using Cash Concentration. The solution through a single instance served global requirements, the flexibility of which provided personalized cash management infrastructure to corporate clients. Its prudent Inter Company Loan Tracking was also provided with regional flavors. The solution's additional benefit also included Multi-Bank Cash Concentration that enabled using SWIFT.

HIGHLIGHTS

Improved business process efficiencies

Unified Liquidity Management across the globe

Enabled flexibility in introducing new products

Reduced operational costs





TRADE

Single sign-on into Trade Finance products through powerful yet intuitive interfaces

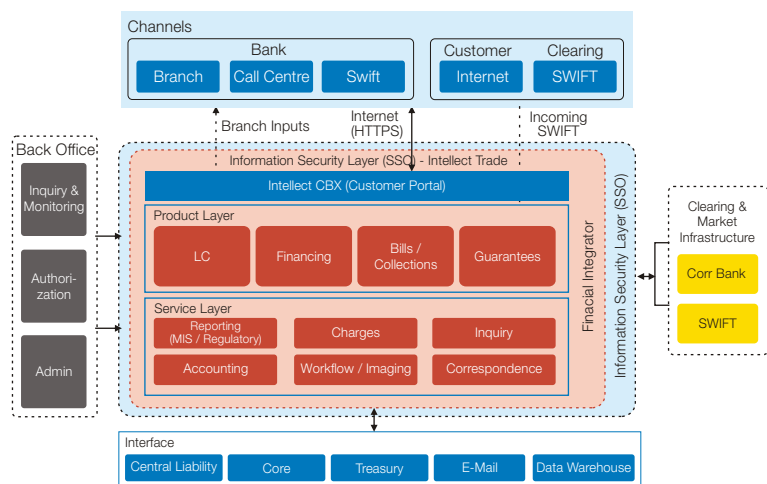
SOLUTION OVERVIEW



Traditional Trade Finance is experiencing a strong revival especially in emerging markets which means a huge potential for banks in the Trade Finance business. However the way banks deliver Trade Finance services to their customers will determine their success and eventual market share. This is where we see the importance of technology and the need of a web-based solution to streamline processes, minimize turnaround times and cut costs, thus adding value to customer relationships.

With over 20 years of expertise in the area of Trade Finance for both system development and management services, Polaris brings forth its highly advanced, flexible and future ready solution to meet the demands of the ever changing business dynamics – Intellect Trade.

Intellect Trade is a comprehensive and proven web-based Trade Finance solution that not only meets banks' Trade Finance product processing requirements, but also offer a plethora of important services such as fully integrated workflow and imaging solution for processing trade finance transactions in real time and in compliance with Trade Industry standards (UCP, EUCP, URC, URR and SWIFT).



Trade Portal Modules

Letter of Credits | Open Accounts | Bills | Guarantees | Supply Chain Financing | Factoring/Forfeiting

“Intellect Trade Finance positioned as strong player in the Trade Finance and Treasury Products Vendor Listing report.” Gartner, 2009



CASE STUDIES



Service provider of choice for all project responsibilities



LEADING GLOBAL BANK CHOOSES POLARIS' TRADE FINANCE AND ONLINE CORPORATE BANKING PLATFORMS FOR TRADE, CASH AND PAYMENTS

Polaris is the service provider of choice for all projects

The client provides Trade Finance services to entities that have assets and business in multiple countries. Its trade business units (global & regional) and four regional processing centers offer round-the-clock operations support and deliver world-class solutions.

The client required integrated reporting and management as there were several trade systems in different technologies and platforms that were managed by different vendors. This led to different processing practices and a very high running cost. Complex program management and global enhancements resulted in varied customers experience across geographies.

TRIMS, the client's global platform for trade services and financing, processes more than 2 million transactions in three regional implementations across the globe on an annual basis. The system is live in 78+ countries. Trade back office and middle office processes offer a complete range of trade services - Documentary Credits, Documentary Collections, Bank Guarantees, Bankers Acceptance, and Reimbursements to Trade Loans - within the same integrated environment.

Polaris' engagement on this application with CMB though multifold, can be summarized as follows:

- ADM Services – includes requirement gathering and analysis, custom application development, strategizing global/regional/country rollouts, architecting technology solutions. It also includes maintenance and enhancements of existing application and 24x7 production support at all levels
- Testing – which includes preparation of system integration test cases, performing module/regression/system integration testing
- Data Migration and De-commissioning of Legacy Systems – which includes analysis and study of legacy systems, data mapping between legacy systems and TRIMS, execution of the data migration strategy
- Integration – This includes integration with different backend systems
- Infrastructure planning – which includes capacity planning, tool evaluation, software upgradation, support Continuity of Business planning / execution and architecture re-design
- Involvement in program management, change control, deployment management
- De-commissioning of other Trade systems such as EPMS, RBCS, and Hogan

HIGHLIGHTS

Caters to 78+ countries

Facilitates easy vendor management and global rollouts

Reduces training cost, overall technology costs within trade

Uniform processing practices

Improves time to market

Ability to white label solutions creating new revenue generation opportunity

Securitization of trade assets to increase revenues





Flexibility to keep pace with changing customer demands



POLARIS SUCCESSFULLY DELIVERS TRADE FINANCE SOLUTION TO TWO LEADING COMMERCIAL BANKS IN APAC REGION

Solution enhances end customer service levels through online real-time processing of trade transactions and status reporting

HIGHLIGHTS

Dramatic increase in productivity and faster time to market

Eliminated the need for manual intervention thus avoiding manual errors

Low operational costs through automation

International commercial activities made efficient through centralized information handling

Better revenue and bottom line growth

Enhanced end customer service

The clients were two leading commercial banks in APAC region. The banks faced various challenges such as long processing life cycles, with varied requirements at each stage. In addition to this document-intensive business and workflow-intensive processing were also a challenge. The client was finding it difficult to track payments on increasing demands of corporate customers and Manual Processes for opening LCs, guarantees and collections.

Polaris provided solutions based on the following aspects:

- Automating the business to increase process efficiency
- Minimal user intervention in Automated processes
- Intuitive User Interface for manual intervention at suitable checkpoints
- Enabling seamless interface between centralized trade processing and diverse, geographically spread out trade front desks/branches
- Coexistence and integration with existing legacy and third-party systems
- Flexibility to keep pace with changing customer demands

Consequently, the opening of LCs, guarantees and collections in much lesser time led to increase in productivity. The outgoing SWIFT messages were directly transmitted to the SWIFT network while incoming messages were automatically mapped directly to the appropriate transaction. Also, launching new Trade Finance products and services by the bank for its customers was done at a faster pace. The end customer service levels were elevated through online real-time processing of trade transactions and status reporting.



TREASURY

*Simplistic yet vital suite of Treasury and Investment Services
with ability to integrate with Online Rate Servers*

SOLUTION OVERVIEW



Modules under Treasury Portal

Front / Mid / Back Office | Foreign Exchange | Money Market | Fixed Income Securities | Derivatives | Rates | Commodities | Asset Liability Management

Key Product Feature

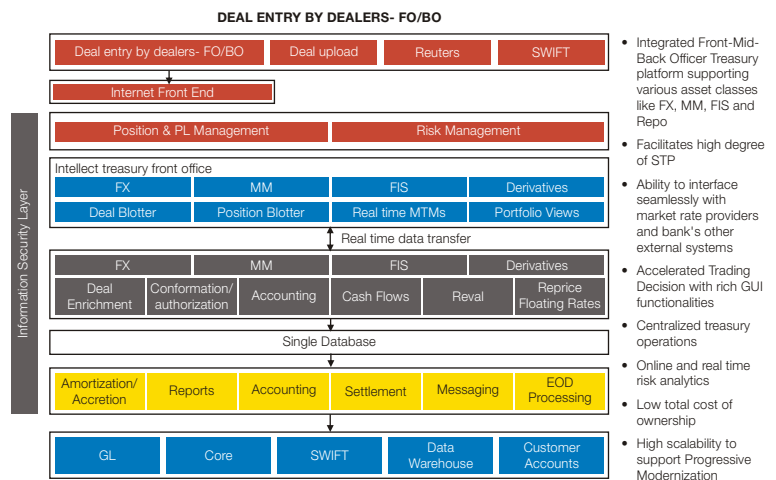
- Supports commodity trade finance modules (consignment basis and out right sales) (Gold, silver, palladium) with support for import and re-export
- Extensive support for part payments
- Supports functionalities such as crystallization of bills, payments of returned bills, support for running account or order based pre shipment finance and post shipment finance
- Supports forward contracts and multiple exchange rates and interest rates in trade transactions

Increased Productivity as a result of migration from an Excel based system (over 80+ excels) to a GUI based Open Platform

Polaris Treasury Offerings

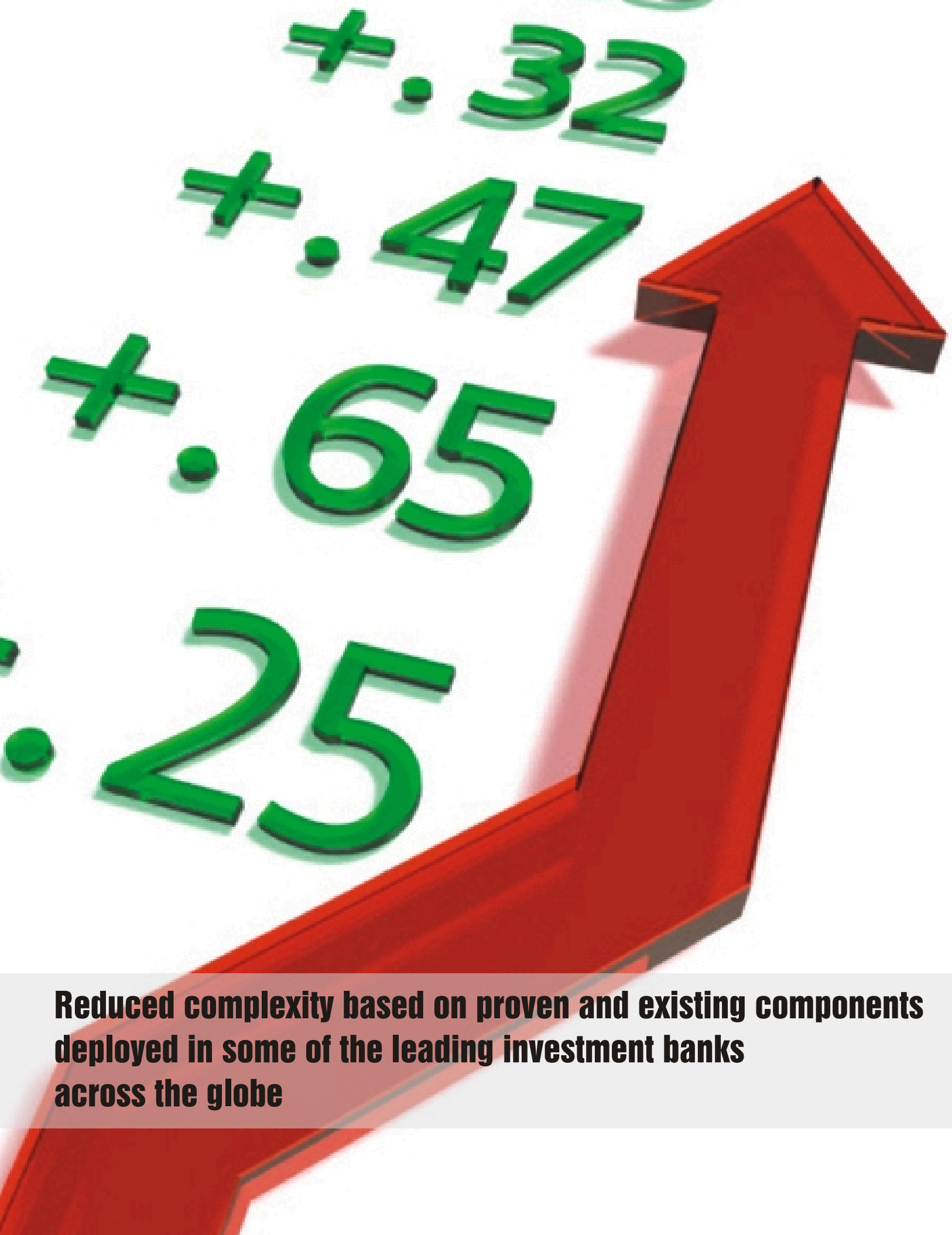
| | |
|-------------------|---|
| Products | <ul style="list-style-type: none"> Intellect Treasury products FX, MM, FIS, Repo Intellect conformation manager, Intellect case manager Accelerators/Proven treasury components Unique accelerated or Smart Build for treasury transformation |
| Services | <ul style="list-style-type: none"> Functional and technical testing Reporting framework and generation of reports Data migration Application re-engineering of legacy system using service oriented architecture |
| Consulting | <ul style="list-style-type: none"> Defining process and policy readiness Technical architecture consulting Model validation System integration and information analysis |

Intellect Treasury - Functional Architecture



Polaris' Intellect Treasury wins The Banker Capital Markets Projects Award (2007)





**Reduced complexity based on proven and existing components
deployed in some of the leading investment banks
across the globe**



LEADING FINANCIAL SERVICES FIRM CHOOSES TREASURY SOLUTION TO HANDLE 2.5 MILLION TRANSACTIONS PER DAY

*Faster solution on-boarding in scheduled 8 months time
using Accelerated Implementation Methodology!*

The client is a major international bank with operations in more than 100 countries. The client's business unit is a shared services organization with a concentration of resources leveraging common activities across the client's businesses. The business unit leverages the client's scale and efficiencies in common activities that are not core to any individual business, with a goal to lower cost and raise service levels.

The client required a solution to cover major functionalities including Monitoring and Reconciliation of Trades, Limit Monitoring, Risk Checks, Settlements, Input / Output Swaps, Netting, Payment Generation, Payment Processing, Swift Message, Reports, and Exception Handling.

The proposed solution for the client's requirement was implemented through Accelerated Implementation Methodology using proven components from successful Intellect products focusing on building the application with the best tools and components available. This application went live in the schedule period of 8 months considering the target dates proposed by the client. The solution encapsulates a highly flexible and scalable solution that not only integrates with the client's existing systems thus meeting current needs, but also meets the bank's future needs with minimum effort, in the most cost-efficient manner.

The solution provides a streamlined, resilient, scalable and innovative application to meet the current and future transaction volumes. The solution provides reduced complexity based on proven and existing components deployed in some of the leading investment banks across the globe.

HIGHLIGHTS

Implemented in short period
using Accelerated
Implementation Methodology

Scalable up to the extent of
million transactions per day

Future ready, highly flexible
and scalable solution





“During the development process the Polaris team has been very quick in responding to the businesses changing requests, in some cases coming back with the desired output, fully tested, in a matter of days. They have been very professional from start to finish and partnered with us to develop an excellent dealing system.”

Global Bank Treasurer in UK



POLARIS PROVIDES LEGACY MODERNIZATION SERVICE TO ONE OF THE LARGEST GLOBAL BANKS

The integration of the existing components with the new components was achieved through the 'SmartBuild' approach

HIGHLIGHTS

SmartBuild approach enables existing components to easily integrate with new components to form a new solution

Provided an alternative to the inevitable buy versus build decision, effectively delivering the combined benefits of both

Allowed the customer to make the quantum leap from a functionally rich legacy application to a new system that could be enhanced progressively towards a complete solution, while including some old features

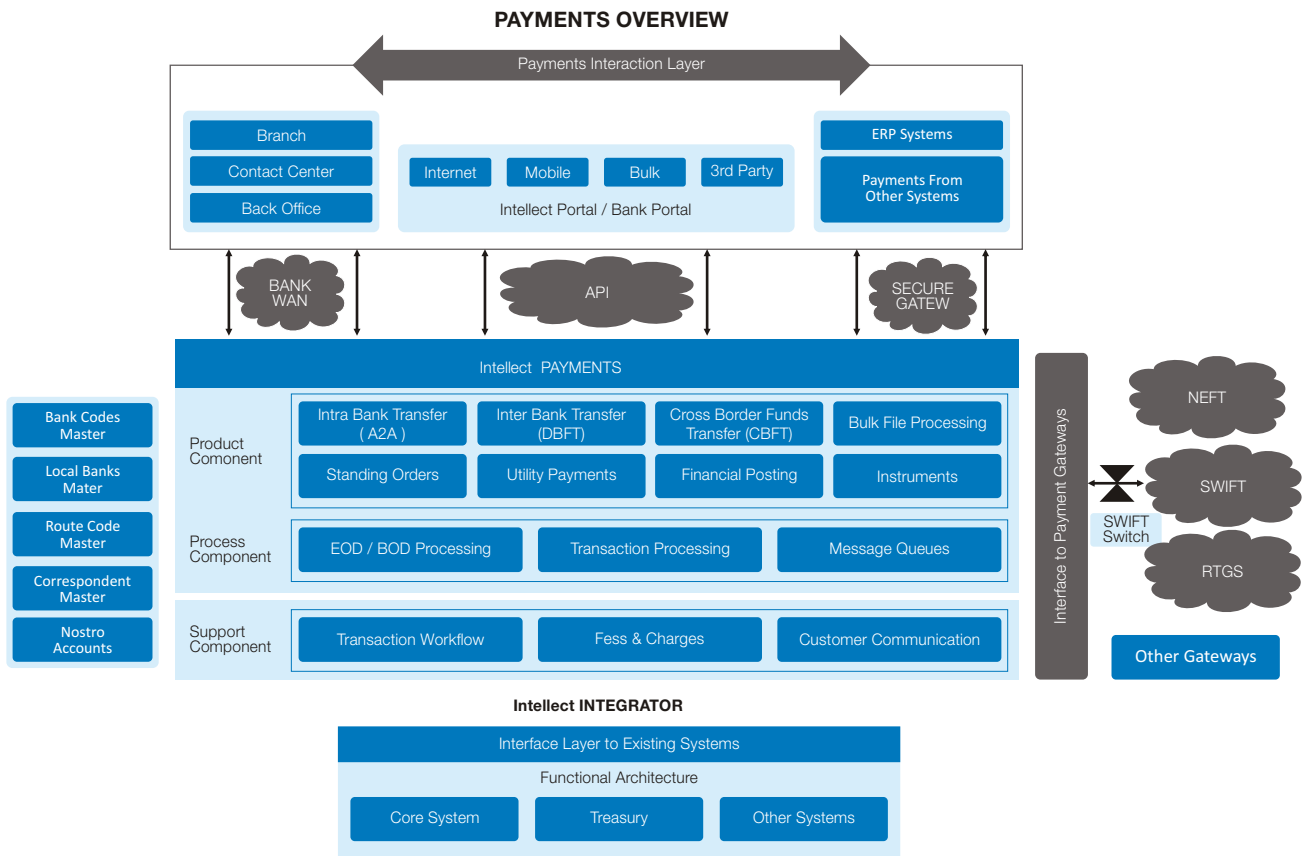
The client is the European risk treasury business division of one of the largest global banks. It faced a challenge in replacing its existing 22 - year-old application using many legacy technologies. With the ever-expanding range of products actively traded by the business, the existing system lacked both the time-to-market capabilities and integration.

The component-based architecture of Intellect Treasury lends itself to the 'SmartBuild' approach. In order to demonstrate the quick time to market using the 'SmartBuild' approach to the business sponsors, a pilot project was proposed whereby Polaris would deliver agreed functionality over duration of fifteen weeks. The pilot implemented a 'Feature Driven Lifecycle' (FDLC) model to meet European Risk Treasury's requirements for the pilot phase. This methodology allowed the business to break complex functionality into sizeable chunks, receive a constant fixed interval delivery, review, signoff and track the delivery, and also fine-tune complex functions and feedback.

An integral to the success of the project was the partnership between Polaris and the bank. Polaris re-located their analysis team on-site and regular trips between both sites created an environment of information sharing and open communication – a 'one team' approach. The project team included the bank's technology and business representatives and Polaris. Twenty seven branches running the legacy application were replaced by Intellect in eight distinct projects. Over the course of the eighteen-month program, every implementation was delivered to the original time and budget estimates, an unprecedented achievement.

Intellect rather than simply replacing the functionality of the 22-year-old system, also delivered immediate value add to the business, including the ability to auto 'square' their warehouses, and bulk upload deals from Excel. Intellect has replaced five standalone versions of the existing system with a single fully functional multi-entity system. Having one integrated system – with high availability application architecture, rather than multiple stand-alone systems with dedicated replicated hardware, has transformed remote CoB coverage.

The solution facilitates region-wide disseminated trade capture and centralized review, removing the historic multiple internal communication steps with centralized full trade capture by traders that resulted in delays and opportunity for error.



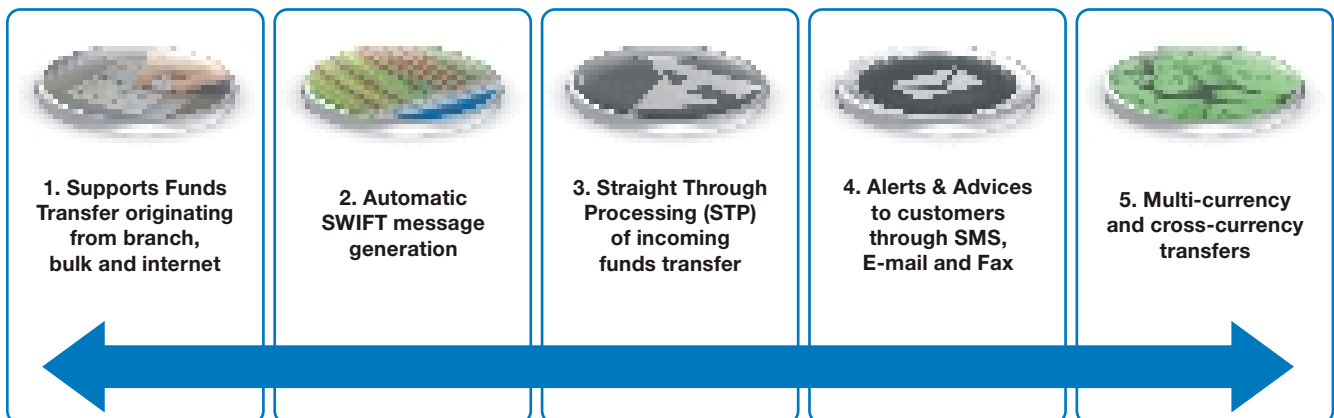
PAYMENTS

A powerful payment engine for increased payment efficiency and to provide value added services to bank customers

SOLUTION OVERVIEW

Product Highlights

- Enables financial institutions to securely generate multi-currency outgoing and receive incoming wires with very high rates of STP, minimal user intervention and high security
- Out-of-the-box support for payment message formats of over 50 countries
- Single payment processing system for multiple channels
- Message Parsing component allows extension of base format for other countries and new payment formats without any code change
- Seamless integration with a Limits module to check customer limits before allowing a payment to pass through helps reduce settlement risk
- Queue based logic to identify payments based on criteria
- Supports corporate file uploads containing various message types and additional information to help corporates reconcile payables and receivables
- Ability to do OFAC and SDN checks on all parties in the payment using Intellect VIGIL (or via industry standard AML engines)
- Comprehensive, cost-effective solution that helps financial organizations reach higher levels of management control and customer service



Recommended by Gartner in their 2009 report titled 'Payment Services Hub: Build, Buy or Assemble?'



CASE STUDIES

The image features a stack of banknotes. At the top, a US one-dollar bill is visible, showing the number '1' in a blue circle and the serial number 'F 65553'. Below it, several Euro banknotes are layered, with the word 'EURO' printed in large, dark letters. The notes are slightly crumpled and overlapping, creating a sense of depth and texture. The background is a soft, out-of-focus pattern of small, colorful dots.

Supports transformation and enrichment of industry standard payment file and message formats



POLARIS PROVIDES UNIFORMITY OF SERVICE OFFERING ACROSS GEOGRAPHY FOR THE WORLD'S THIRD LARGEST BANK

Rate of onboarding corporate clients doubled and the overall operational cost was significantly reduced by 30%...

HIGHLIGHTS

Highly scalable application that spans across various geographical locations and run on multiple servers

Highly componentized solution with support for multithreading and asynchronous processing

Secure and timely transmission of data

SOA architecture enables fitment into the ecosystem of any organization

Interoperability on J2EE-compliant application servers such as Weblogic, Websphere, Jboss, etc.

Lowers TCO as changes in payment standards, rules, and so on can be achieved through configuration

Provides intuitive UI for Business Activity Monitoring

The client is the third largest bank in the world in terms of profits. It has significant presence in Americas and Europe. The bank has a strong focus on retail banking with over 14,000 branches and caters to 90 million customers.

The bank wanted to strengthen its Corporate Banking business and expand revenue share to expand the financial contribution of the Global Wholesale Banking division. The solution must have the ability to process custom formats of corporate customers as well as supporting Industry standard formats for other customers. It must also enhance STP levels. The bank wanted a solution that reduces time to market for any compliance, regulatory or business enhancements and has uniformity of service offering across different geographies. It required management of corporate customer data at global, local and subsidiary levels. It also wanted to strengthen customer-centric service to provide its corporate customers the advantage of sending messages in custom and industry standard formats.

Polaris offered a solution that supports transformation and enrichment of industry standard payment file and message formats such as EDIFACT, SAP IDOC, ISO20022 XML, SWIFTNET FIN, and so on, and proprietary messages from corporate systems. Balance and status reports can be downloaded by customer in their formats. It ensures high degree of STP of individual/bulk payments and seamlessly integrates with multiple upstream and downstream systems for payment orchestration.

The solution improved the clients overall ROI. Support for industry standard formats such as EDIFACT, SAP IDOC, ISO20022 XML, SWIFTNET FIN, and so on enable quick and easy integration to corporate payment system. The rate of on-boarding corporate clients doubled and the overall operational cost was significantly reduced by 30% due to high configurability. The solution enabled faster Go-To market for new products, payments standards.

From the operational point of view uniformity of service offering across geography was achieved. The solution provided support for distributed access and centralized control of global payments operations and status monitor dashboard to display summary information of the STP.

Error / exception handling was set up on the basis of business validations and the solution also offered provision for a peak throughput in excess of 1million transactions per day.



Customized transition plan to ensure superior control & measurement



LEADING BANK IN US CHOOSES POLARIS TO MANAGE PAYMENTS INFRASTRUCTURE

Helped the bank to de-risk its operations over 2500 institutional clients around the world

Established in 1812, the client is a global conglomerate and leader in Financial Services, spanning over 140 countries. As the business model for the rest of the industry, the client meets the unique and varied needs of over 2,500 institutional clients around the globe.

The client needed to de-risk its operations by partnering with another vendor who would provide engineering expertise and services to manage the payments infrastructure rollouts and enhancements. As part of the program, the client wanted a qualified vendor for partnership to create the necessary infrastructure & team and support its multiple enhancement releases for three regional installations (EMEA, India & US).

Polaris proposed a two-phased transition plan to acquire application and systems knowledge.

In the first phase, onsite training for the core team from Polaris was held for three weeks. The primary objective of the onsite training was to acquire a comprehensive understanding of the various application components and processes. The second phase was to manage the planned enhancement releases and ad-hoc production code fixes. The key objectives of this phase were to acquire familiarity with the actual configuration items, set up the regional codebases, and hands-on understanding of the release management processes.

Post transition, the Polaris team in India worked as an extended 'one-team' to manage the planned enhancement releases and ad-hoc production code fixes for the program for EMEA, India and US.

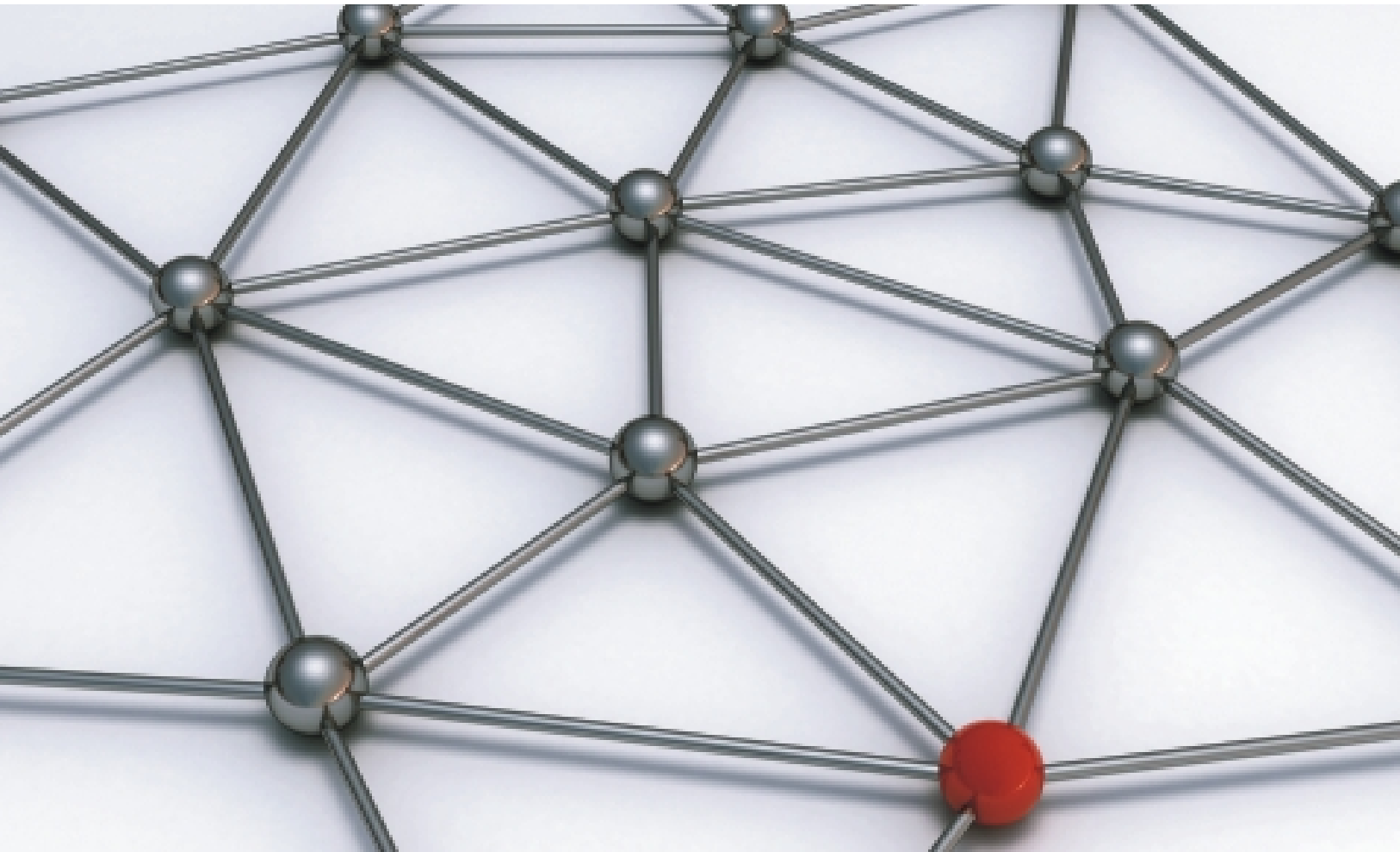
HIGHLIGHTS

Client achieved optimum utilization of resources

Provided scalable and dedicated deployment and a tested and proven connectivity mechanism

Provided customized transition plan to ensure superior control & measurement of each phase





HUBS

Platforms that integrate and connect information silos

SOLUTION OVERVIEW



HIGHLIGHTS

Real-time status update and value added services to preferred customers



Single-view presentation and deal lifecycle management



Standardized & Streamlined Global Risk Analytics



Comprehensive web-based, Internet-enabled software product for SME Banking



Hubs are platforms that integrate and connect information silos, where business rules and workflows are orchestrated and then distributed further. They are out-of-the-box solutions that support multiple lines of business with superior functionality and architecture.

Intellect HUBS

Intellect Payment Services HUB

The payment services enables business innovation through payments consolidation pricing. It consists of inbuilt H2H support for client ERP integration.

Intellect Payment Services HUB is an intelligent application that integrates Corporate ERP, orchestrates payment workflows with rule based processing, manages exceptions and provides real time Business Activity Monitoring.

Intellect Credit Services Hub

The Intellect Credit Services Hub is an enterprise wide platform for real time credit decisioning and monitoring across 'Islands of Silos'

The Hub support multiple lines of businesses such as Inventory Funding, Commodity Finance, Leasing, Loans, Trade Finance Measuring Concentration Risk and Large exposures for "right MIS at the right time".

Intellect Enterprise Risk Hub

Intellect Risk Hub provides a Standardized & Streamlined Global Risk Analytics covering ALM, Market Risk, Credit Risk, Ops Risk, Pricing & Regulatory Reporting.

Attribution Analysis on various Risk factors enables Risk Manager to confirm risk numbers. Multi-entity & multi-business line capability enables slice & dice of risk numbers by various segments. Dynamic Analysis through interest rate sensitivity analysis enables the impact of portfolio change. Regulatory Compliance covers Basel II, FSA reporting and stress testing.

Intellect Working Capital Hub

This is a comprehensive web-based, Internet-enabled software product for SME Banking.

Its superior functionality & architecture enables SMEs manage their Proposal Processing and Credit Assessment efficiently & successfully.

CASE STUDIES



Out-of-the-box solutions that support multiple lines of business



LARGE EUROPEAN BANK IMPLEMENTS INTELLECT PAYMENT SERVICE HUB

Achieves improved ROI through additional revenue generation

The client is one of the large European banks having operations across Europe and Latin America. The bank provides quality financial services to its retail and corporate customers through a country wide network of branches. It is regarded as a leader in pioneering new technology and practices within banking. The client operates principally in Spain, the United Kingdom, Portugal, other European countries, Latin America and the United States, offering a range of financial products. The client is organized in three principal segments: Continental Europe, United Kingdom and Latin America. Continental Europe covers all retail banking business, wholesale banking and asset management and insurance conducted in Europe, with the exception of the United Kingdom.

The client required a solution that would increase its Global Wholesale Banking segment's contribution towards the total group profits by offering its corporate customers seamless integration to its existing ERP systems, a single window to initiate all its payments, enhanced levels of STP and consistent and improved services. The solution also required the handling of different input and output formats such as EDIFACT, SAP iDOC, ISO20022 XML, SWIFTNet FIN and reacting to regulatory and legal changes. The client has long suffered with a low degree of straight-through processing (STP) and high operational costs due to manual payment processes. SEPA compliance is a vital functionality in the solution.

Polaris provided the client Intellect Payment Services HUB - an intelligent application that seamlessly integrates with the client's ERP systems for file processing and status reporting, orchestrates payment messages across multiple applications and enables STP of individual/bulk payments through rule based processing. The solution is a feature rich product which enables STP, lowers cost of operations, reduces operational risks, improves margin and with its flexible architecture, it fits well into the overall IT landscape of the client. The solution is introduced in the current payment eco-system without requiring any change to the existing Payment Infrastructure.

The solution offered support to the transformation and enrichment of industry standard payment file and message formats like EDIFACT, SAP iDOC, ISO20022 XML, SWIFT Net FIN, and so on and proprietary messages from corporate systems. It was flexible enough to cater to the changing Payment standards, regulatory and customer needs. High degree of STP of individual/bulk payments was ensured also providing intuitive UI for Business Activity Monitoring.

HIGHLIGHTS

Achieved greater ROI

Additional revenue generation

Single-window payments processing facility to its customers

Peak throughput in excess of 1 million transactions per day





WHITE PAPER

This White paper on Portal & Mashup Integration was awarded the first prize at the Polaris Financial Technology Conference, 2011



MASHING UP THE PORTAL



Kanika Chandra

Team Leader

Polaris Enterprise Solutions Ltd.

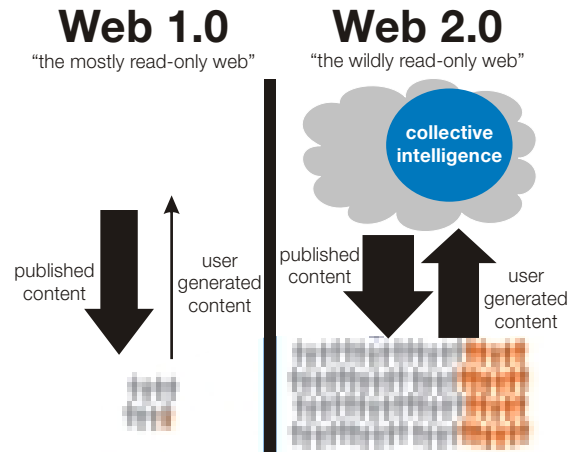
Introduction

This white paper outlines the characteristics and usage of Mashups. It discusses the integration of Mashups with Portal technologies and software. The paper further highlights how organizations can implement these integration options to help users gain valuable insights and solve business problems more effectively, and in the process achieve greater flexibility while lowering costs.

History

Life on the web these days is exciting. It has come a long way from days of static content and its passive viewing to the recent era of assembly of applications and information on the fly, making end users the creator and controller of content.

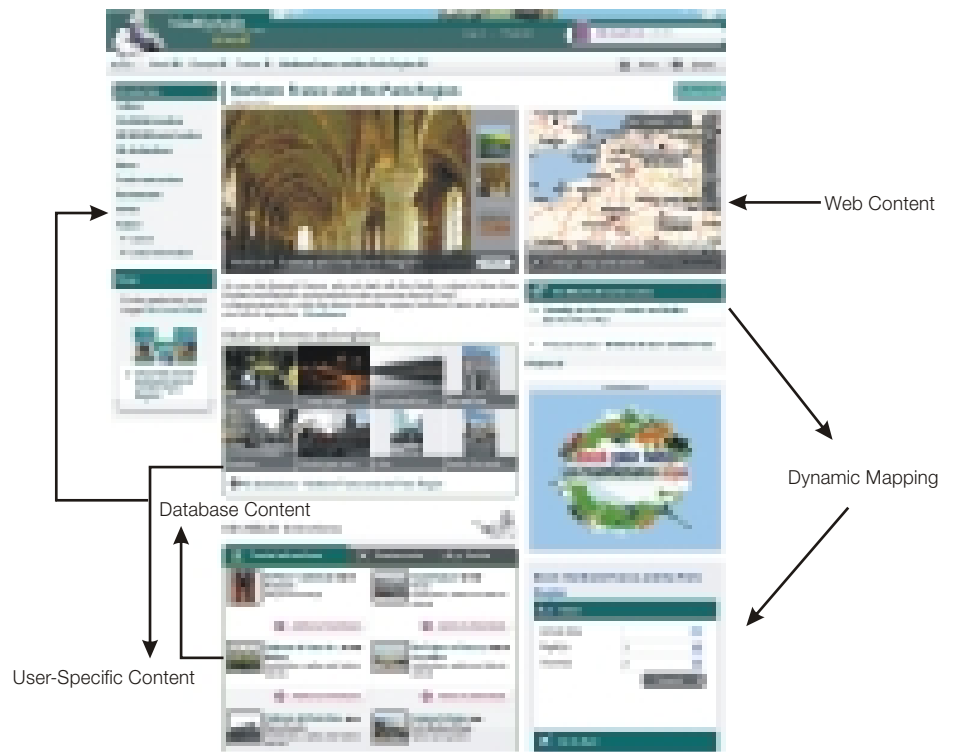
Web, in its 1.0 days, necessitated business companies to store consumer data and update it regularly. They controlled all the data and the consumer had to use their products and services to retrieve information. With the advent and emergence of Web 2.0, a new era was created and adopted across traditional competitors that unlocked the consumer data. In this new age of the Web, the user is provided with more user-interface, software and storage facilities via his / her browser. This 'Network as Platform' computing creates an 'Architecture of Participation' that allows and encourages the users not only to contribute content, but also to add value to the application that they use.



With this sudden increase and explosion of varied types of content, a new challenge emerged - that of filtering and aggregation of relevant and related information. Web portals evolved to address users' need to collate and gather information from diverse sources in a unified way. The main concept is to present the user with a single web page that brings together or aggregates content from a number of other systems or servers.

To keep pace with technology revolution and with an aim to advance their user base, portals have embraced and incorporated many of the features of Web 2.0 including Mashups. Mashup is an exciting aspect of Web 2.0. A Mashup site spreads its roots across the Web by drawing upon content and functionality from data sources that lay outside its organizational boundaries. The term has been borrowed from the pop music scene, where a Mashup is a new song that is mixed from the vocal and instrumental tracks of two different source songs (usually belonging to different genres). Like these songs, a Mashup is an unusual or innovative composition of content made for human consumption.

Mashups are a natural fit for portals. A portlet can fetch content from various data sources to create a Mashup. Subsequently, the portal can personalize that data so that its users can have their own Mashups with data sources that suit their individual needs.



Developed in only 4 weeks, ViaMichelin, Michelin's travel portal, is an engaging mashup of database information, Web content, user-generated content (UGC) and dynamic mapping for 15 million points of interest (hotels, restaurants, attractions, etc.). Site features including geolocalization, dynamic categorization and clustering, entity extraction (people, places, and organizations), faceted results navigation, reverse search, proximity search, approximate search, and spell checker. ViaMichelin processes 800 queries per second using only 8 servers.

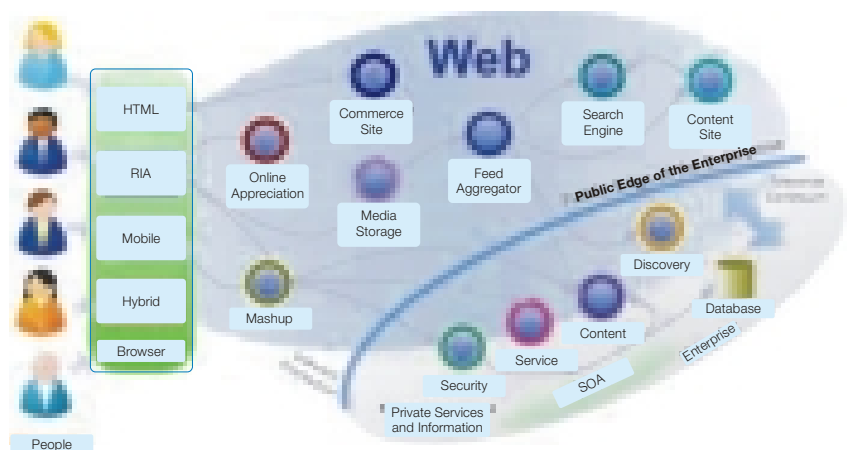
Web Portals & Mashups

Converging Technologies

Web portals provide users with a single, security-rich, personalized interface that collates numerous sources of information from within a company's firewall and from the Internet at large. The right portal can help employees, business partners and organizations to:

- Work more efficiently by providing right information at right time
- Streamline business processes
- Drive innovation
- Implement new product and service delivery offerings

In the Web 2.0 world, Mashup is a Web page or application that is a result of easy, fast integration (frequently using open APIs, XML feeds and data sources) to produce enriched results and to solve a specific business need.



Source: <http://web2.wsj2.com>

Use of Mashups

Mashups have multiple users. Typically, they help in the following:

- They help improve the speed of IT to respond to changing business needs
- They enable more flexibility for business users by allowing them to focus on their own targeted applications and environment while not interfering with mission-critical applications

Mashups in their characteristics and implementation differ from portals in the following respects:



It is being envisioned in certain quarters that Mashups might just do away with the portal concept. According to Michael Ogrinz (author of *Mashup Patterns: Designs and Examples for the Modern Enterprise*) the Mashup phenomenon “threatens the relevance of the corporate portal. The tools for these mini-applications have become easier to use and more familiar to a broader audience. If enterprise Mashups are the path to user-created data and widget platforms are the environment for presenting the information, the combination of the two represent the death knell for the corporate portal”.

It is true that Mashups constitute light-weight composite applications that can be built easily without extensive infrastructural support. However portals, in addition to providing a presentation-level integration of applications, offer features such as authentication and authorization (including single sign-on), portlets and integration, page aggregation, feeds, templates, workflow, etc. that Mashup platforms in their existing capacity do not.

Portals and Mashups are both ultimately content aggregation technologies. And so, even if on the face of it the two might appear to be two fiercely competitive options, in reality they complement each other – both accelerating IT and business-based development of applications. Portals reduce the need for expensive back-end integration, and, in combination with Mashups, they allow users to perform custom integrations as needed – without IT intervention.

A common business scenario involves preparation for a customer site visit by a sales representative. The sales executive has to gather all the information about her customer and study it before she reaches the site. A speedy, simple and time-saving solution would be to create a Mashup that allows her to pull customer data from multiple sources and display that data in a single, dynamic portal application. This would result in quick analysis, better decision making, improved collaboration and increased visibility into business information.



INTEGRATION

IBM WebSphere Portal Server & IBM Mashup Center

IBM WebSphere Portal software is a marketplace leader that has been successfully deployed by more than 6,000 customers across a wide range of simple and complex deployment scenarios, including high-scalability (top customer nearing 100 million users), commerce, social and transactional environments. It has been estimated that building a portal with WebSphere Portal server can facilitate a 29 percent lower TCO than building one in-house.

IBM Mashup Center is a product offering that provides a complete, end-to-end Mashup platform for line-of-business users who want to assemble single, flexible, and dynamic Web applications.

The Mashup Center tool is designed to provide business users, IT staff and organizations with capabilities needed to:

- Quickly and easily create, share, customize and secure enterprise Mashups
- Facilitate innovation and agility by enabling nontechnical users to drag and drop components from personal, enterprise and Web sources to develop and share Mashups in minutes
- Unlock, transform and dynamically assemble enterprise, Web, personal and departmental information into consumable or 'Mashable' assets that address daily business challenges.

With Mashup integration the portal makes sharing pages and other content among users easier.

| | Portal | Mashup |
|-----------------------|---|--|
| Classification | Older technology, extension to traditional Web server model using well defined approach | Using newer, loosely defined 'Web 2.0' techniques |
| Philosophy / Approach | Approaches aggregation by splitting role of Web server into two phases: markup generation and aggregation of markup fragments | Uses APIs provided by different content sites to aggregate and reuse the content in another way |
| Content Dependencies | Aggregates presentation-oriented markup fragments (HTML, WML, VoiceXML, etc.) | Can operate on pure XML content and also on presentation-oriented content. (e.g.,HTML) |
| Location Dependencies | Traditionally content aggregation takes place on the server | Content aggregation can take place either on the server or on the client |
| Aggregation style | 'Salad bar' style: Aggregated content is presented 'side-by-side' without overlaps | 'Melting Pot' style: Individual content may be combined in any manner, resulting in arbitrarily structured hybrid content |
| Event Model | Read and update event models are defined through a specific portlet API | CRUD operations are based on REST architectural principles, but no formal API exists |
| Relevant Standards | Portlet behavior is governed by standards JSR 168, JSR 286 and WSRP, although portal page layout and portal functionality are undefined and vendor specific | Base standards are XML interchanged as REST or Web Services. RSS and Atom are commonly used. More specific Mashup standards such as EMMML are emerging |

Source: Wikipedia

Widgets, feeds and assembled Mashup pages can be published to a common repository called the Catalog where they can be easily discovered and shared among users.

WebSphere Portal and IBM Mashup Center software can be easily integrated by organizations to take advantage of these tools for greater efficiency and innovation. The collaboration of these tools offer three levels of integration. Organizations have the flexibility to choose the model that best fits their needs, allowing for a high level of component reuse for user interface components.

- Creation of a Mashup page from scratch within WebSphere Portal
- Creation of a Mashup page within the Mashup Center, its publication to the catalog, and its addition from there to the portal
- Creation of a Mashup page in the portal, its publication to the catalog, and its addition from there to the portal; this can be the same portal, or a different one

To overcome existing Mashup integration issues with the Portal server, the WebSphere Portal-Mashup Center combination offers the following advantages:

- A lightweight widget model called iWidget that defines a standard for widgets
- Support for secure Mashups and a standard cross-domain secure communication mechanism

| Yesterday | Today |
|---|--|
| A portal user who wanted to share a page with other users had to create that page as a nonprivate page and then make it available to other users. This often required a dedicated user with the appropriate access rights to perform these tasks. Users see the shared page in the same place in the portal navigation where the user who created the page placed it. | Users can create pages and share them with other users without requiring the access rights to create nonprivate pages. The users with whom a page was shared do not immediately see that page in their navigation, as the original page was created as a private page. However, they can explicitly accept the shared page by using the appropriate UI dialog and add them to a place of their choice in their personal navigation area. |

Mashup pages display widgets instead of portlets in the portal.

| Feature | Widgets | Portlets |
|-------------|---|--|
| Aggregation | Client-side JavaScript-based integration from practically any server. | Server-side execution in a standardized portlet container; generated markup can be aggregated client-side or consumed remotely |
| Language | Widgets can be written in Java, PHP, Microsoft .NET, Ruby on Rails, HTML, JavaScript and other languages. A widget can even be a portlet. | Portlets are written in Java |
| Standards | None; current proposal in OpenAjax Alliance. IBM uses the iWidget specification. | JSR 168, JSR 286, WSRP 1.0, WSRP 2.0 |



SWOT Analysis

SWOT analysis for a potential Portal-Mashup integration appears as below:

| | |
|---|---|
| <p>Strengths</p> <ul style="list-style-type: none"> • Reuse of existing applications • Ease of application development as development does not necessarily involve extensive IT skills • Associated cost of application development is greatly reduced • Low investment in infrastructure cost • Stabilize fickle audience • Increase revenue | <p>Weaknesses</p> <ul style="list-style-type: none"> • Standards are an issue as no industry wide agreement on a widget standard has been formalized • Lack of enforcement of governance policies • No validation of external data • Data integrity issues as data could be inconsistent, incorrect and intentionally misleading • Absence of a communication protocol |
| <p>Opportunities</p> <ul style="list-style-type: none"> • Speed of development and reduction in development costs through reuse and lightweight integration techniques • Increased productivity as lower skill sets are needed to create new applications • Innovation boost by unlocking and remixing information not originally perceived • Increased agility by support of dynamic assembly and configuration of applications • Ease of rapid prototyping supports improved communication and requirements sharing, leading to more customer focused applications • An expanding Mashup market – a report from Business Insight predicts that the enterprise Mashup market, worth around \$161 million in 2008, will expand more than tenfold to \$1.74 billion by 2013 | <p>Threats</p> <ul style="list-style-type: none"> • No contract between content provider and consumer • Security is a major concern as mashing of internal corporate data with an external public non-trusted API could be a major security risk • Vulnerability to Denial of Service (DoS) attacks and JavaScript leaks • Potential problem in scaling up of application as content is provider dependant |

According to Gartner, portals will serve as the primary entry points for enterprise Mashups and will be the home for Web 2.0 Mashups. With the evolving Web 2.0 trends, portal vendors will decompose their offerings along SOA lines and the entire portal fabric will undergo a change where the user becomes the center of the “Portal Universe”. Mashups, likewise, are the latest harbinger of SOA, and the beneficiary of it. They also are a natural complement to SaaS.

The future of portals is Mashups, SOA and more aggregation. In effect, the future is aggregation of the aggregators via Mashups and shared APIs across consumer and enterprise portals, says Gartner. It comes as no surprise then as multiple leading vendors including IBM WebSphere, BEA Weblogic, Oracle, Liferay etc have incorporated Mashup support.

Conclusion

Portals, along with Mashups, support the cultural shift in collaboration – from a document-centric, static, siloed, one-size-fits-all model to a community-oriented, services-driven environment.

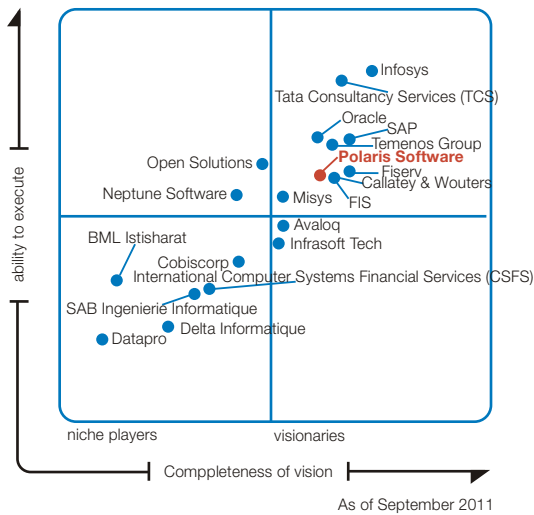
Together, IBM WebSphere Portal and IBM Mashup Center software offer one of the most comprehensive enterprise platforms for Mashup development and deployment, social computing and Web 2.0 principles. They help extend SOA to the end user, providing a personalized collection of resources for a more efficient, productive workplace. The combination of WebSphere Portal software and IBM Mashup Center helps contribute to less effort, less cost and faster time to value.



ANALYST SPEAK



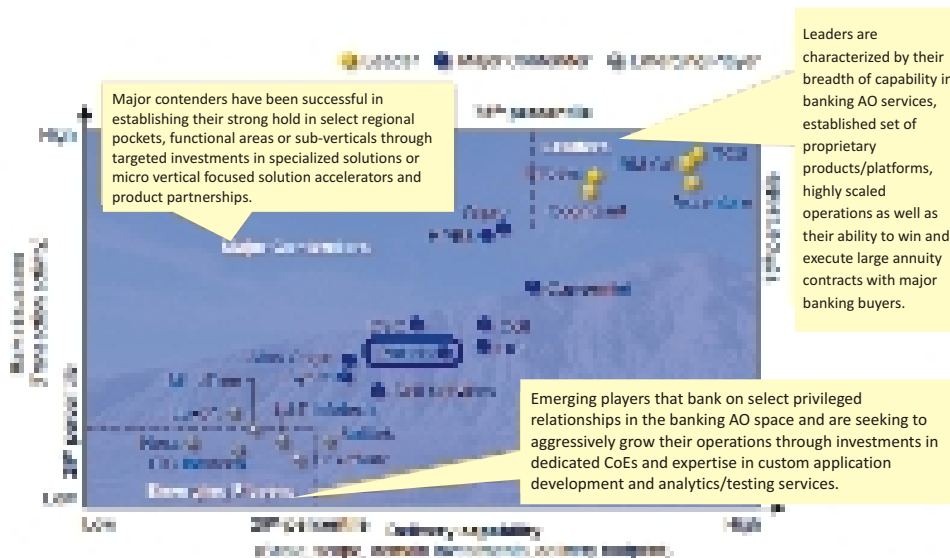
POLARIS TAKES LEADERSHIP POSITION FOR THE SECOND CONSECUTIVE YEAR IN GARTNER



- Intellect is a service-enabled, component-based core banking system.
- Polaris provides advanced service programs, such as progressive modernization of legacy environments that help reduce risk in more complex, transformational core banking replacement programs.
- Polaris' Accelerated Implementation Methodology, which reduces program duration, is now being extended to large banks.

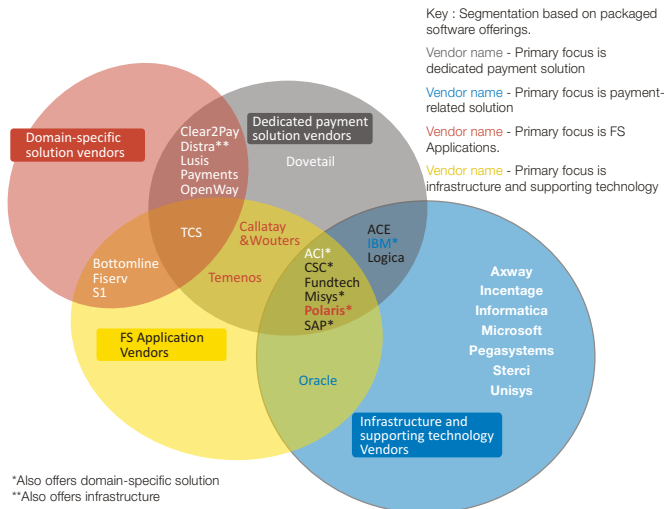
Source: "Magic Quadrant for International Retail Core Banking", Gartner, Sept 2011

POLARIS RATED "MAJOR CONTENDER" IN EVEREST FOR LARGE BANKING APPLICATION OUTSOURCING RELATIONSHIPS



Source: IT Application Outsourcing (AO) in Banking: PEAK into the Evolving Service Provider Landscape, Everest, Sept 2011

POLARIS RATED AMONGST THE LEADING PAYMENT VENDORS GLOBALLY BY GARTNER



Polaris / Intellect was rated amongst the global top 5 vendors and to have qualified in all the four categories

- Dedicated Payment Solution Providers
- Domain-Specific Solution Vendors
- FS Application Providers
- Infrastructure and Supporting Technology Vendors

Source: "Four Vendor Segments Banks Must Consider When Modernizing Payments", Gartner, Sept 2011

POLARIS PACE MBX RECOGNIZED AS THE ONLY SPECIALISTS BFSI VENDOR TO PROVIDE MOBILE TECHNOLOGY ORIENTED TESTING SOLUTIONS BY IDC

Polaris offers mobile testing services on Android, Symbian, Windows, BlackBerry, Iphone.

Polaris PACE MBX provides niche focus in the BFSI sector; it provides mobile testing services for applications, which include FX trading, personal banking widgets, and other m-commerce options. These applications are typically developed for multiplatform support such as thick desktop clients, thin Web-based clients, and mobile / smart phone

| Polaris – Range of Mobile testing services offered | |
|--|---|
| Testing Service | Focus of Service Offering |
| Functional Testing – Banking applications | Polaris conducts client and server side testing (e.g., GIT, UAT and automation testing) for a range of banking applications: <ul style="list-style-type: none"> • Retail Banking and channels • Corporate Banking • Investment Banking • Wealth management Banking |
| Functional Testing – Nonbanking applications | Polaris conducts functional testing for other types of applications including: <ul style="list-style-type: none"> • Marketing, promotions and advertising applications • Crisis Management and SOS-type applications • Weather forecast applications • Gaming applications • GPS |
| Performance Testing | Polaris performs load, capacity and stress testing of mobile application servers (server and client side) |
| Security Testing | Leveraging its domain-specific knowledge, Polaris validates security across the technology stack |
| Mobile Devices & OS compatibility testing | The testing team validates that a given application works as intended with selected devices and Oss: <ul style="list-style-type: none"> • Devices including Nokia, Blackberry, Palm, Sony Ericsson, HTC and Motorola • OS Symbian, Blackberry, Android, iPhone and Palm • Technology : SMS, USSD, WAP, WIG / SIM tool kit and JAVA |
| Multiple carriers and location testing | Work with ecosystem of carriers for location-specific and field testing |
| Simulator testing | Polaris carries out multiple simulation test scenarios from host to Web, host to device and so forth |

Source: "Mobility Testing Services: Providers' Cross - Platform and Usability Expertise Helps Customers Build Strategic Advantage", IDC, Sept 2011



SPOT LIGHT

SIBOS EVENT GALLERY

POLARIS POWER PLAY AT SibOS 2011!

Polaris participated in Sibos 2011, the world's premier Financial Services event for Corporate Banking held in Toronto this year, from 19 – 23 September. This is Polaris' seventh consecutive participation at Sibos. Polaris' presence only re-emphasized its place as an 'agenda setter' in the banking world. The success saga of Sibos 2010 continued in 2011 too!

The Polaris stall was one of the busiest among technology vendors, even on the final day. Decision makers, influencers, analysts, consulting firms... were all there to experience and understand the efficiencies that Polaris can bring to enhance their business.

One of the major events during Sibos 2011 was the launch of Intellect CBX 3.0, which provides banks with an architecture that will enable them to add new products with ease. CBX 3.0 is the most evolved avatar of the Polaris CBX model that has undergone continuous reinvention and reengineering, and its frictionless ability to integrate with the back-end product processors allows banks to offer more products per customer.

Another major highlight of the event was the presence of IdenTrust. IdenTrust partners with Polaris in FTGrid – Polaris' cloud-based Financial Technology solution. IdenTrust is a pioneer of the Identity Management solutions. With its experience of supporting over 500 million PKI validations every year it has built deep expertise in delivering secure hosting services.

Over five days, there were meetings with several global, regional and local banks, including Standard Chartered, VocaLink, BMO, BankAm, Citi, ANZ, JPMC, Wells Fargo, Barclays Corporate, Deloitte, SocGen, BNP, RBS, Lloyds, Santander, Intesa, Union Bank, Bank of Tokyo-Mitsubishi, CBA, Deutsche Bank, CIBC and many more.

Sibos 2011 was indeed a show of Polaris Power!



Arun Jain, Chairman & CEO, Polaris, addresses Senior Executives from leading global bank such as ANZ, JPMC, Citi, BMO and others at the Polaris booth during the Intellect CBX 3.0 launch



Arun Jain launches Intellect CBX 3.0



Uppili Srinivasan, Executive Vice President, elucidates the features of Intellect CBX 3.0 to participants from leading global banks and financial institutions



Arun Jain and team in discussion with Senior Executives from Citi



A gathering of visitors listening to a presentation



The Polaris team in discussion with visitors from a global financial institution



The Polaris team at Sibos 2011

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CBX widgets simplify the way the 'always short on time' corporate decision makers go about their job. Each widget is a derivative of one or more of the four Viz. Information, Analytics, Decision and Transaction widgets - **The IADT paradigm**

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