بسم الله الرحمن الرحيم

أكاديمية السودان للعلوم المصرفية والمالية

مركز البحوث والنشر والاستشارات

المنتدى المصرفي الخامس والستون

ادارة القنوات الالكترونية المتعددة بالمصارف

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المدير العام لشركة الحلول الذكية للانظمة والبرمجيات

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ملخص الورقة

استثمرت المصارف– في الدول المختلفة– خلال السنوات القليلة السابقة مبالغ طائلة في تطبيقات وخدمات تقنية المعلومات بغرض التميز والتنافس، وبدأت قنوات خدمات العملاء في تقديم خدماتها بمعزل عن القنوات الأخرى (بدون تنسيق بين القنوات) وبربط منفصل للأنظمة الأساسية بالمصارف مما جعل العميل كمن يتعامل بأي قناة مع مؤسسة منفصلة، وتمخض عن ذلك عدة مشاكل نذكر منها:

1. تنوع مصادر المعلومة الواحدة وطرق الحصول عليها ومصادرها باختلاف التطبيق أو القناة.
2. عدم التنسيق بين القنوات وصعوبة إدارتها.
3. تنوع التطبيقات يخلق عدة بئيات تخصصية مما يزيد في المتطلبات للمتخصصين.
4. متطلبات الأجهزة والمعدات لكل نظام جعل جملة المعدات غير مستغلة بصورة مثلي.
5. ارتفاع تكاليف التطوير والتعديل لتعقيد البيئة العاملة وعلاقات جزئياتها.
6. تكرار العمليات علي مستوي القنوات المختلفة.
7. كثرة التطبيقات وإختلاف طرقها تصعب عمليات المتابعة وتتبع الأخطاء ومسئوليات تنفيذ الحركات في الأنظمة المصرفية الخلفية.

لكل ما سبق أصبح تعديل أو تغيير أي جزئية من أنظمة المصارف أمراً معقداً و يكلف مبالغ طائلة. و**الغرض من هذه الورقة** هو تصميم نظام لإدارة القنوات الالكترونية المتعددة بتكاملية مع مراعاة سهولة التطوير وإدارة العلاقات بدون تكرار المهام بين القنوات و التطبيقات المختلفة للمصارف مما يجعل قنوات خدمات العملاء تعمل بتنسيق و تكاملية تامة.

ولقد خلصت الورقة إلى أن منهجية إدارة القنوات تساعد على تحقيق الآتي:

1) زيادة القدرة التنافسية وسرعة تقديم الخدمات.
2) سهولة تصميم وإدارة خدمات العملاء.
3) تقليل الوقت والتكاليف.
4) سهولة المراقبة والمراجعة المتقدمة.
5) استخراج تقارير متكاملة في كل بيانات الخدمات.
6) إيجاد بيئة مصرفية ذكية تعتمد على الحاسوب دون الأعمال اليدوية.
7) توفير بيئة موجهة لتقديم خدمات العملاء وتسهيل تصميم وإدارة الأنظمة والخدمات.
8) تشاركية (تكاملية) البيئة المصرفية

وفي السودان توجد قنوات كثيرة بالمصارف العاملة تحتاج لإعادة نظر في ترتيباتها خاصة وأنها بدأت حديثاً في أعمال تطبيقات تقنية المعلومات والوسائط و الخدمات المصرفية، لذا تكون المهمة أسهل في الوقت الحاضر وتصعب كل ما تقدم الزمن.

Banking Multi-Channel Management

Introduction

Bank Departments act like independent businesses, making decisions in their own channel and services with little consideration of others.

Retail banks are being forced to change this approach. Faced with falling product margins and rising customer demands for more personalized service, they are turning to more innovative customer facing strategies. For many, a key component is to manage, in a more holistic way, the various channels that customers can now use to conduct business with their bank.

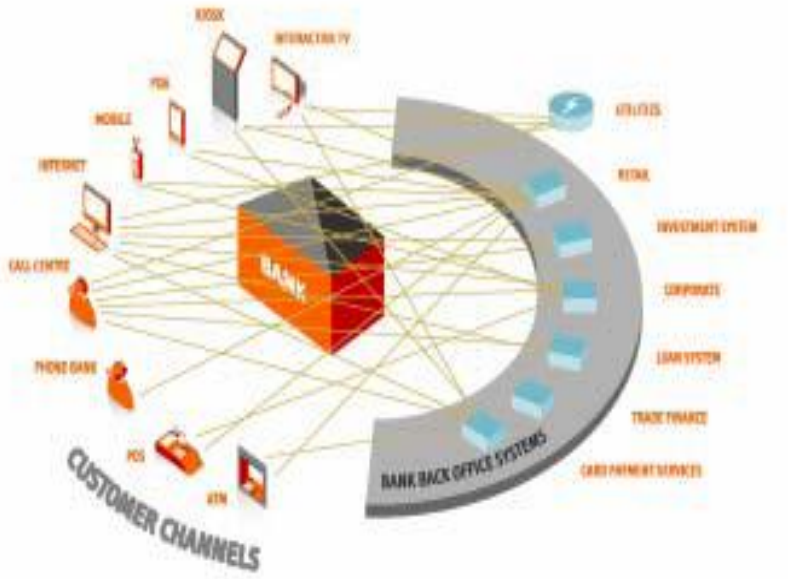
Over the last 30 years the banking industry has invested heavily in information technology. In return, technology has enabled banks to transform their businesses to deliver a broader range of products and services to a more diverse client base. It has enabled banks to scale profitably to have more customers/Accounts/cards/touch-points while managing their cost base.

It has reached a stage where the banks technology infrastructure is the key engine which now underpins and, to a large extent, delivers the business. For a variety of reasons these critical technology platforms have developed in a non optimal way with:

- Duplicate or inconsistent customer information
- Un-coordinated channel deployments and integration
- Very difficult to operate
- Costly to upgrade or modify
- Limited 24x7 service provision
- Business logic replicated in multiple locations
- Difficulties on trace error and faults between applications

These weaknesses are now beginning to impact the development of the business. Banks are beginning to find it more costly to scale and impossible to drive new business imperatives .Figure (1) explains the current integration between channels and applications.

Figure No. (1)
Current integration between channels and applications



This paper examines the advent of a new phase in banking technology delivery called "Channel Management". This is a modern "enterprise based" approach to banking services which is based on leveraging old and new technologies to form a highly scalable and flexible banking delivery platform.

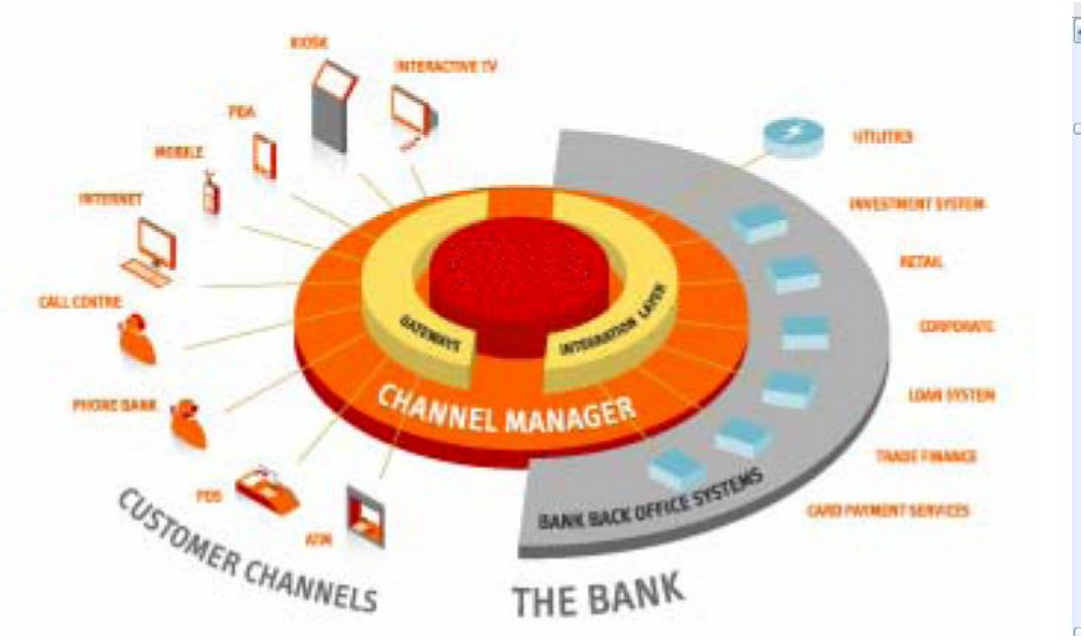
What is channel management?

A modern services-based platform based on highly scalable middleware with pre-built intelligent banking logic and open Multi-Channel and multi-host integration points. Figure No. (2) explains the suggested channel base platform in banking environment.

A number of applications and technologies have become, to varying levels, synonymous with channel management. These include:

- Middleware or Interfaces
- CRM
- Multi-Channel Integration
- New generation back-office systems
- Service oriented architectures

Figure No. (2)
Suggested channel base platform in banking environment



Although each of these addresses some of the concerns encompassed by channel management, all fail to address significant requirements which ultimately need to be addressed. We believe that channel management comprises elements of all of the above items.

Middleware:

Middleware was initially confused as channel management although its inherent lack of banking functionality and inability to provide stand-in service means that it is no more than a technical platform for an ultimate channel management solution. It has failed to work for small and medium institutions as it requires significant skill and effort to integrate with the bank's deployment. In large institutions although it has delivered some benefits it has necessitated other work to address issues such as 24x7 support of banking services.

This means that it relies totally on the ability of the back-end servicing applications and so it :

- Can not provide services when the back-office is unavailable :
- Does not have any inherent banking logic to assist stand-in
- No ability to link customer or account information
- Expensive to license, deploy and integrate

Customer Relational Management (CRM):

Although often viewed as an all encompassing solution, CRM does need to be broken down into its summary components. Analytical CRM will be highly successful once a modern channel management platform is in place which can effectively disseminate this information. For example, delivering CRM to channels which customers regularly use for example, ATM and Internet, will be critical in driving success.

CRM has been associated with high levels of failure across a range of industries. In particular the banking sector has failed to appreciate significant return on investments made.

Recent research indicates that although CRM did help to build large repositories of customer information, as indicated above, the lack of system integration and legacy channel applications mean that this information is not readily accessible to customers or staff. Therefore, in a lot of cases the effort to collate this information is wasted. Limitations CRM's weakness lies not in its ability to analyze large repositories of customer information, but in its ability to deliver this in an effective and timely manner.

It is reliant on a strong channel management platform which can leverage and deliver this information.

Multi-Channel Integration:

Channel Integration is a different area not to be confused with channel management. It tends to focus more on the touch point, device operation, content management and presentation. Ultimately it relies on an underlying Channel Manager to provide a full platform of services integrated across a range of back-office systems.

Multi-Channel integration toolsets on the market have a preference for one domain of channels or another. For example, the Multi-Channel ATM applications have only strayed as far as the Kiosk but no further. Similarly content management systems have had limited success outside the Internet and Mobile channels.

Multi-Channel Integration systems can make it easier to deliver applications to a variety of channel types or in slightly different ways. However, they do not have inherent banking features or functionality and ultimately rely on a channel management platform to feed them with the critical information and services. Their main weakness is that they do not get to grips with the key business logic or the integration with the back-office systems.

New generation back-office:

Although there are new generation applications on the market which provide a breadth of features not originally available, most banks still run applications which were, at best, designed in the 1980's. Due to the level of investment and difficulty to replace them, many banks are not willing to pursue this route.

For many banks their core banking applications were designed in an era which pre-dated the range of channels and 24x7 supports now mandated. Systems also have no such thing as Client Authentication models needed to support channel access.

Upgrading to one of the modern new generation applications, although appealing, is not the ready answer. For most banks, upgrading to a new back office system is like performing open heart surgery - very high risk. However for most banks, this heart surgery needs to happen in tandem with running the day-to-day business. Fundamentally however most banks have multiple back-office systems deployed, as not one system is capable of encompassing the full breadth of Retail, Debit/Credit Cards, Corporate Services, Lending, Trade Finance and Treasury features which are required.

There are a number of highly functional new generation back-office applications on the market which can provide features such as:

- Client based
- 24x7x365 service support
- Published Channel Interfaces
- CRM integration

Many banks have attempted to upgrade their legacy applications to newer generation applications. However, for a large percentage, this has proven to be a painful migration taking years instead in months and often resulting in elements of the legacy application remaining for many years.

Even with these new generation applications they are not functional enough to replace all the back-office requirements. Also their tendency is to focus on back-office accounting rather than channel management features such as:

- Customer profiling
- Service definition
- Authentication frameworks

Finally this approach locks the bank into a critical dependence on one vendor as opposed to being able to leverage a true best-of-breed approach.

Service Oriented Architectures (SOA) :

This is a topic which is beginning to become well known within the realms of channel management. However, rather than being an underlying technology or business application, it is primarily a design methodology for an overall channel management platform solution.

Services Oriented Architectures (SOA) re-affirms the well proven component based approach where distinct services are defined with documented interfaces, and provided at a platform level for all applications to share. This has the benefit that services can be distributed, upgraded or replaced without affecting other applications. In addition specialist 3rd party services can be embedded which deliver high end features in a cost-effective, low risk manner.

Reaching the channel management "Tipping-Point"

The retail banking sector has been experiencing much frustration in the business. Some of this has already been identified in previous sections. This has led to tension between the business and IT support teams within banks.

Business users see clear requirements:

- to be more competitive
- to provide greater customer service
- to streamline business operations and costs
- to deliver more timely information on compliance
- to employ methods to counteract fraud
- to be pro-active on money laundering and reporting

However, internal IT teams are under increasing pressure to simply maintain current system enterprise operations as transaction volumes continue to spiral upwards. These new business requirements, although perfectly sensible, are increasingly difficult to extract from their un-coordinated legacy deployments.

The deployment of a channel management platform was originally seen as a pure infrastructure or technology based project. It was an IT backed initiative to serve their purpose of tidying up some operations and integration issues.

However, now the business case for a channel management solution deployment is being made by an array of tangible business initiatives. There is

more and more evidence that both IT and Business departments are now realizing the benefits in investing and migrating to a channel management solution. This section explores some of the catalysts driving this change in mind shift in more detail and underlines the key benefits. The channel management catalysts for change explored in this document include:

1. No touch banking:

Straight through processing for Retail Banking in an effort to streamline operations and simplify compliance and regulatory reporting.

The drive to automate payments from capture through to completion has enabled banks to:

- reduce manual processing costs
- eliminate the potential for error
- streamline and reuse regular settlement information
- limit the window for fraud
- scale the number of payments processed without associated costs

However a channel management platform can in many ways begin to drive the migration to STP as:

- It is a single point through which all channels and back-office services are now delivered and co-ordinated
- Business logic in the platform can ensure transactions are fully validated at the capture stage and are then seamlessly routed to the required back-office application based on dynamic data, for example transaction type, account type, customer, currency etc.
- Integration with modern delivery channels and notification mechanisms can be used to optimize the transaction flow and squeeze turnaround times
- Adherence to modern standards, e.g. XML, means that live integration with key 3rd party services, e.g. Credit Scoring, Utility companies, e-Government can validate and enrich the transaction in real-time
- Integrating a specialist Workflow application into the channel management platform optimizes capture and routing for larger more complex transactions, e.g. Mortgage application
- Inherent log and audit services in the platform ensure security and compliance requirements are addressed transparently for all transactions and manual intervention is kept to the required minimum

2. Intelligent banking architectures:

Event or exception based banking, with live updates as movements occur to assist areas such as cash management or fraud monitoring

The deployment of a Channel Manager brings a very new dynamic as it is designed to bring banking intelligence to the "real-time" transaction flow. Some of the key benefits

are:

- Up to date information on customers can be collated by the Channel Manager on all activity across all systems on a 24x7 basis
- Fraud or CRM systems can be integrated with the Channel Manager transaction authorization step, to get real-time feedback before completion
- The Channel Manager allows customer profile information to be defined and updated as required via a browser by the customer themselves (e.g. Acceptable Card Usage)
- Background platform processes detect account movements, thresholds, trigger excesses and act on and report accordingly
- Integration with new push technology such as e-mail and SMS dynamically and automatically deliver timely customer alerts

3. Customer self-service:

Flexibility for customers and lower staff costs by enabling customers to perform their own account management and monitoring functions.

This approach enables customers to serve themselves. For example, customers can:

- Query their own account information and full transaction history
- Change simple account details, e.g. fixed deposit rollover profile
- Setup and administer their own Standing Orders
- Define their own 3rd party beneficiaries
- Open their own additional deposit or savings accounts
- Transfer money globally
- For corporate customers, they can administer their own users

These are just some examples of transactions that sophisticated customers are happy to perform themselves. This has the distinct benefits in that:

- Administration costs are reduced which allows the bank to pass additional savings on to the customer in the form of lower fees for example
- New revenue streams are added: The bank can reduce the ledger fees to customers who want to use the self-service facility
- New customer are acquired as bank provides higher services levels and flexibility to customers
- Customer loyalty is increased as customers now take more ownership of their accounts which can reduce their likelihood to move to another provider

4. True Customer Relational Management (CRM):

CRM has been viewed for a long time as the critical technology for the banking sector, pushing their "Product held by Customer" up. It has also been seen as the way to service and support customers in a more pro-active fashion.

Large amounts of cash have been burned by banks in an attempt to reap these

perceived rewards, but in reality the returns have been very poor. So why has this failure occurred? Is it simply poor planning, poor project management or lack of business focus. The key factor which has limited the potential success of CRM comes back to the drivers underpinning the need for channel management:

- Lack of integration
- Inconsistent customer information
- Inflexible legacy channel and back-office applications

As many banks embarked on CRM initiatives with the key goal to sell more products and better service their customers, they underestimated the size of the problem. The solution to this problem is now called "Channel Management".

CRM initiatives to date have succeeded in collating large amounts of customer information from a variety of applications to a central point. However the critical failure has been the inability to deliver this. For example, many banks with deployed CRM systems can identify customers with overdrafts who would be prospects for refinance loans or cash rich individuals who would benefit from investment products. However the inability to deliver this information to the customers or to staff who can act on it has been the single biggest weakness.

5. Platform sharing:

Looking at ways to reduce deployment and operational costs, through shared, regionalized or centralized platform solutions.

The deployment of a channel manager can be a critical step in addressing this conundrum. It has been specifically designed to support:

- Multi-bank
- Multi-base currency
- Multi-language
- Multi-customer type deployments from a single operation

This means that:

- Banks delivery options can be consolidated
- The required brand/services/options can be delivered from a single point very rapidly
- Costs are reduced as the need for multiple separate delivery systems are reduced
- Single point to maintain compliance/security and report from
- Easy to integrate in legacy applications and migrate transparently as required

Figure No. (3)
The Structure Internally of Multi-channel Management System

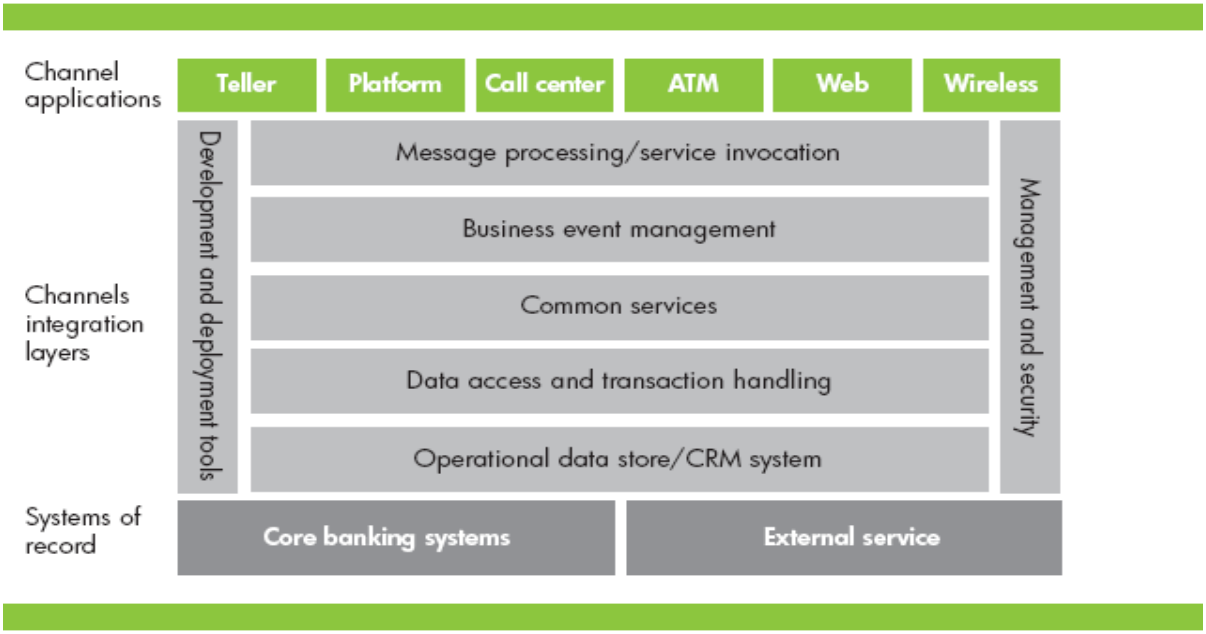
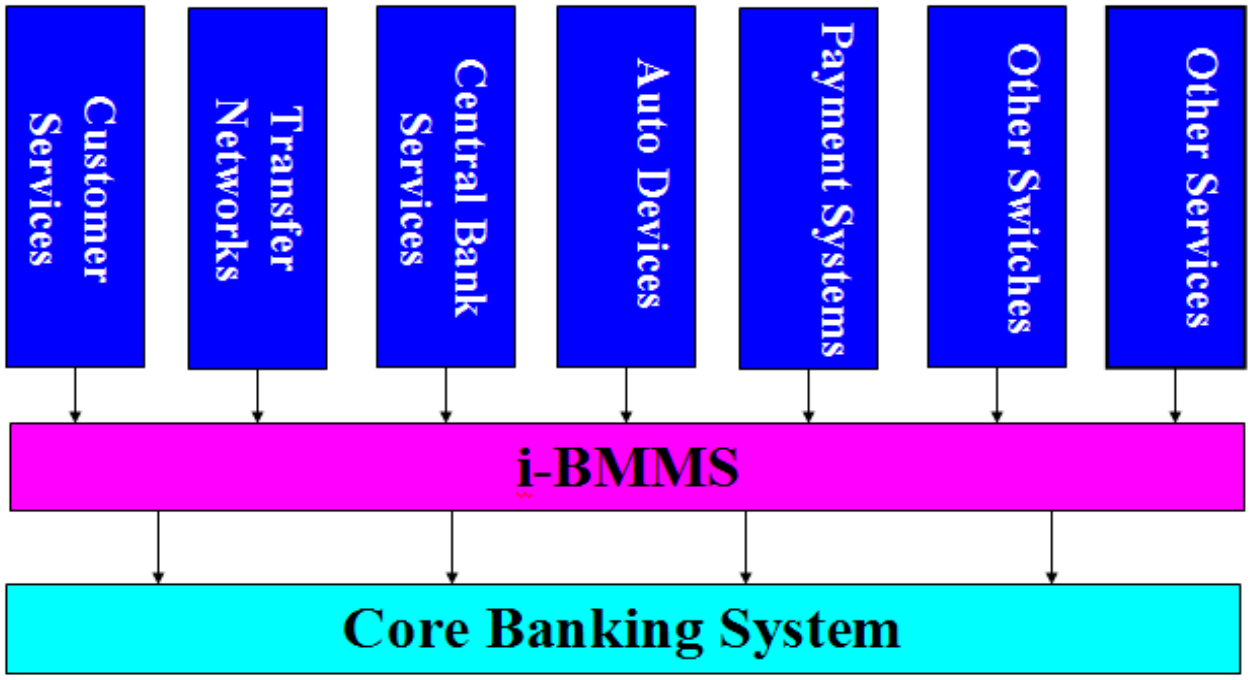


Figure No. (4)
service oriented structure



In Sudan, we can list some of channels in the following:

Customer Services :

- Phone Banking
- Mobile Banking
- Internet Banking (Home Banking)
- Call Center
- Banking Fax Server
- Banking e-Mail Server

Transfer Services:

- Swift Alliances
- Al Arabi Bank (Sudia)
- Al Ahli Bank (Sudia)
- Al Rajhi Bank
- Al Rajhi Corporation
- Dubai Islamic Bank
- User Defined Banks and Corporations

Central Bank Services :

- EFT Interface for ATM
- EFT Interface for POS
- Electronic Cheque Clearance Interface (PS ECC)
- Real Time Gross Settlement System (RTGS)
- Any Others Interfaces

Auto Devices:

- ATM
- POS
- Exchange Rate Display Management System
- PDA Banking
- Cheque Book Printer
- Information Kiosk
- Payment Machine
- Any Others

Payment Systems:

- Bill Payments
- Prepaid Payments
- Visa Master Cards
- e-Commerce and e-business
- Other Payments System

Sudanese banks start to implement interfaces and channel integration however all these channels work in separate systems (collection of kingdoms). The multi channel concepts will come up soon as the major issue for Sudanese banks, even if they do not put it on their current IT plans.

Conclusion:

Multi-channel management is inextricably linked with the actual channel applications which deliver the service. Deploying a channel management infrastructure can bring many benefits:

- Provides additional services to existing channels
- Provides consistent information to existing channels
- Can simplify or improve integration to the channel

In order to fully leverage all the benefits which channel management can deliver, some channels may require modernization, or in some cases replacement.

An integrated channel banking solution can provide a bank with a single source of data giving a complete view of the customer. Customer activity can thus be monitored, analyzed, interpreted and reacted to in real time. Other Interfaces system integrations through one system make it easy , manageable, secured, upgradeable and easy for applying rules.

Most of banks in Sudan are on the beginning of deploying interfaces, CRM, and customer services channels. It is easy for them to avoid facing these problems if these approaches included in their structure.

References :

- www.capgemini.com/banking, financial Services : Multichannel Management.
- Hewlett-Packard Development Company, Multi-channel integration software in banking: applying the essential management solution, Technical blueprint, 2006.
- www.Cr2.com, CR2 Ltd, Channel management White paper, 2005.
- www.zdnet.co.uk, Financial Services Firm Delivers Multi-Channel Banking With New, Integrated Platform, Whitepaper [June 20, 2007, 0:00]