

DEPARTMENT OF INFORMATION TECHNOLOGY
FINANCIAL SECTOR TECHNOLOGY VISION DOCUMENT

Mission Statement

<<< I T FOR EFFICIENCY AND EXCELLENCE >>>

Corporate Objective:

**“Enabling financial sector to leverage on I T for better customer service,
improved housekeeping and overall systemic efficiency”**

Chapter I

Introduction

The IT saga in Indian Banking commenced from the mid eighties of the twentieth century when the Reserve Bank took upon itself the task of promoting automation in banking to improve customer service, book keeping, MIS and productivity. This role played by the Reserve Bank has continued over the years.

Some of the major landmarks in this regard are:

- ❖ The introduction of MICR based cheque processing – a first for the region, during the years 1986-88;
- ❖ Computerisation of branches of banks – an activity which commenced from the late eighties with the introduction of ledger posting machines (LPMs), advanced ledger posting machines (ALPMs), followed by stand alone computer systems which metamorphosised into network based systems and the latest development pertaining to the installation of Core Banking solutions;
- ❖ Facilitating computerisation of Government business – from the late nineties which has now resulted in all branches handling Government business perform their functions using technology;
- ❖ The setting up of the Institute for Development and Research in Banking Technology (IDRBT), Hyderabad in the mid nineties, as a research and technology centre for the Banking sector;
- ❖ The commissioning in 1999, of the Indian Financial Network as a Closed User Group based network for the exclusive use of the Banking sector with state-of-the-art safety and security. The network supports applications having features such as Public Key Infrastructure (PKI) which international networks such as S.W.I.F.T. are now planning to implement ;
- ❖ Commencement of Certification Authority (CA) functions of the IDRBT for ensuring that electronic banking transactions get the requisite legal protection under the Information Technology Act, 2000;

- ❖ Ensuring Information Systems Audit (IS Audit) in the banks for which detailed guidelines relating to IS Audit were formulated and circulated;
- ❖ Enabling IT based delivery channels which enhance customer service at banks, in areas such as cash delivery through shared Automated Teller Machines (ATMs), card based transaction settlements etc.;
- ❖ Providing Guidelines for Internet Banking, which facilitated the banks to ensure that common minimum requirements relating to Internet Banking offerings were provided for;
- ❖ Providing detailed specifications to banks on the configuration of systems relating to critical inter-bank payment system applications such as Real Time Gross Settlement (RTGS) System, Negotiated Dealing System (NDS), Centralised Funds Management System (CFMS) etc.;
- ❖ Implementation of the National Financial Switch (NFS) to ensure inter-connectivity of shared ATMs and to provide for funds settlement across various banks.
- ❖ Establishment of e-payment gateways for the benefit of customers (such as the gateways for funds transfers and other account related transactions) and for facilitating e-commerce.
- ❖ Sharing of information through the secured internet website for the Centralised Data Based Management System-Internet (CDBMSi) project.

Besides, steps have been initiated for

- ❖ Providing a platform for transmission of electronic messages across banks using common standards, for facilitating 'Straight Through Processing' (STP) in the form of the Structured Financial Messaging System (SFMS), which will be similar to the SWIFT messaging pattern;
- ❖ Setting up connectivity of all clearing houses of the country so as to enable the introduction of the National Settlement System (NSS)
- ❖ Introducing a secured web site for internet based data transfer to Central and State Government. Government Departments may populate the data from the secured web site to their own systems based on their requirements.

All these initiatives have resulted in banks in India utilising technology to their best advantage leading to improved customer service. The Reserve Bank would continue to provide lead in this regard.

Today, the role of IT has become so integrated and pervasive with most banking business world over that it becomes necessary to mitigate the operational risks arising out of failure of IT systems and hence it is engaging the attention of regulators. Two major areas of concern in this context are the need to ensure Business Continuity in the event of a failure and the need to mitigate the incidence of operational risks.

Given these critical requirements and in its endeavour to sustain the progress and provide direction to the IT initiatives of the financial sector, the Reserve Bank sets out this Vision document which provides a bird's eye view of the plans for IT development in the medium term, with the required focus on corporate governance. The Vision document has been divided into four major focus areas as follows:

- ❖ IT for regulation and supervision
- ❖ IT and IDRBT
- ❖ IT for the Financial Sector
- ❖ IT for Government related functions

Chapter II

IT for Regulation and Supervision

Current Status:-

One of the important functions of Central Banks world over is to regulate the financial system, ensure financial stability and thus help economic growth of the nation. Different countries have adopted various methods for carrying the work of inspection over their regulated entities of which two methods adopted by a majority of nations are On-Site inspection and Off-Site inspection. In India, a combination of on-site inspection and off-site surveillance with bias towards the former is the current position.

Currently there are many IT based application systems such as OSMOS of DBS, COSMOS of DNBS and OSS of UBD which facilitate banks, NBFCs and Urban Co-operative Banks (UCBs) respectively to submit their periodical returns or statements to the Reserve Bank. The development of the e-reporting system is at a rudimentary stage, because its usage for improved decision making has not yet become part of the work culture. The existing off-site surveillance systems do not have authentication systems. Thus, in addition to forwarding returns through electronic means, a hard copy of the same is also forwarded to the Reserve Bank for authentication of the same. Moreover the branches of the regulated entities are not networked which lead to delay in filing the regulatory returns to the bank concerned and thenceforth to the Reserve Bank. Many regulated entities prefer to send their data in magnetic media such as floppies to the Reserve Bank as there is no mandate or regulatory compulsion about the type of IT support level at their end. E-filing of the regulatory information has not been achieved fully. Practicing Risk Management using IT is also at preliminary stage. Preparedness for implementation of Anti-Money Laundering and Basel-II norms in terms of IT technology is at its infancy among the regulated entities. The Centralised Data Base Management System (CDBMS) was setup for the Banking sector as a Decision Support System but its use has not been widespread. The use of CDBMS as a Decision Support System (DSS) at the banks level can improve only when the staff utilise empirical evidence for decision making in a big way

or to perform new activities such as Customer Relationship Management (CRM).

International Scenario

While several central banks are directly involved in the supervision of the banking and other financial institutions, others have formed regulatory organisations to carry out this function. New Zealand relies pre-dominantly on off-site surveillance in other countries including USA, on-site inspection is an important tool for bank supervision.

The Federal Deposit Insurance Corporation (FDIC), the Federal Reserve Board (FRB), and the Office of the Comptroller of the Currency (OCC) are three of the Federal Financial Institutions Examination Council (FFIEC) Agencies. Under the guidance of the FFIEC Reports Task Force, these three agencies (Call Report Agencies) have formed a steering committee to collectively manage the development and operation of the Central Data Repository (CDR), to be fully implemented by the end of 2005. The CDR is a centralised resource for users and providers of the financial institution data. The CDR facilitates a more-efficient regulatory reporting process by enhancing the methods used to collect, validate, process, and distribute Call Report data. In US the call reports, which are regulatory returns, is used for analysis by the regulator. Most of the banks furnish call reports through the Internet or by using the services of a service provider, in a safe manner.

Emerging Challenges :-

- Given that there are varied types of banks in the country and the reporting requirements of all categories may not be uniform, the adoption a generic architecture for all banks as a whole becomes difficult. Implementation of a standardised system or tools for risk measurement all over the financial sector for e-reporting or online transmission of the returns becomes an arduous task.; therefore, standardisation of the broad parameters will attain broad objectives.
- For the establishment of I T related infrastructure there will be a cost to be borne by the regulated entities, which will be a worthwhile investment.

- For the successful implementation of the Basel II norms, the foremost requirement is that the Central Bank should have appropriate IT systems to supervise and guide the regulated banks in the right direction.
- Banks may have to develop a Decision Support System on the current Management Information System for the better analysis of the data and risk management on a real time basis, in addition to other functions such as credit decisions, foreign exchange management, treasury operations etc.
- Creation of a single and consolidated centralised database for e-reporting of various returns in order to avoid duplication in submission of returns to different offices.
- The prudential returns submitted by banks to Reserve Bank are one of the important bases for off-site surveillance of banks by RBI. This necessitates satisfaction of features like data integrity, authentication and confidentiality in respect of the returns submitted electronically through use of digital signatures.
- The returns submitted by the banks form the basis for conducting risk based supervision which necessitates authenticity of data reported in the returns..
- Off-site surveillance system should help in monitoring data receipt and also send reminders through emails automatically to the regulated entity concerned.
- The immediate e-reporting of potentially suspicious financial transactions – with possible links to money laundering and terrorist financing – to the regulator for necessary action.
- Technology upgradation at the regulated entities so that the information submitted by them electronically conforms to non-repudiation, authentication and encryption standards.
- The information pertaining to suspicious transactions to be reported by the regulated entities immediately to the appropriate authorities.

Repositioning framework

- As the Bank has adopted the strategy of hiving off its entire operational functions and retaining only its regulatory and supervisory functions, the use of the technology in its regulatory and supervisory functions plays a pivotal role.
- The real time online transmission of the data via email or FTP server from the regulated entities to the single centralised database of the regulator shall be the objective, and common inter-operable structures such as Extensible Mark-up Language (XML) used for such data transmission.
- It may be necessary for all the regulated entities to follow the generic standards of the systems for e-reporting and e-filing.
- The Bank shall have necessary means to remove all the impediments which delay the receipt of e-reporting of the returns by insisting on the technological upgradation of the regulated entities. This reduction in the time of receipt of the returns is very helpful in better monitoring the health of the regulated entities.
- The real time e-reporting of suspicious transactions will help in the early detection of the fraud and prompt follow up thereof.
- The application for e-reporting should be web enabled and have adequate security standards like PKI and digital signature for authenticity and enhanced confidentiality of data.

Chapter III

IT and IDRBT

Introduction

The Vision document is aimed at translating the aims and objectives of the institute for the next three years in light of the challenges faced by the Banking and Financial Sector.

Vision and Mission of the Institute

Vision

To be a globally preferred and reckoned “Premier Research Centre” on financial sector technology and related management issues to the Indian financial community.

Mission

- ❖ *To envision and foresee financial industry requirements and appropriately Research & Develop the required technologies..*
- ❖ *To develop state-of-the-art IT infrastructure to augment technology absorption.*
- ❖ *To create a pool of Banking Technology and Information Security Professionals through innovative and quality educational initiatives.*
- ❖ *To provide advisory and consultancy services on technology and technology management matters for Banking and Financial sector.*
- ❖ *Play a catalytic role, to facilitate strong inter-relationship between academics and industry.*

Three Year Practical Vision

As a first step towards formal strategic planning process the following practical vision has been arrived at:

- ❖ Clear understanding of the emerging global technology trends and its implication for the Indian Financial Sector.
- ❖ Preparing an action plan for technology migration of Indian Banking & Financial Sector.

- ❖ Evaluating the developmental requirements of the existing common technology infrastructure and roll out common services/applications.
- ❖ Reorient the Research & Development activities from the above perspectives.
- ❖ Aligning the organization structure and infrastructure for the R&D requirements
- ❖ Resourcing and upgrading the manpower to meet the R&D and Services related requirements of the Institute.

Barrier Analysis

One of the key prerequisites before drawing up of a strategic plan of action to actualize the vision, is to identify the current barriers which can hinder the process:

- ❖ Non-alignment between Institute's preferred focal areas of research and actual research specialization.
- ❖ Emphasis on academics reducing the importance and the available time for R&D activities.
- ❖ Orientation towards pure research leading to incongruence between Institute's research activities and expectations of the industry.
- ❖ Absence of a structured system to obtain feedback from industry on services rendered by the Institute for realigning Institute's activities.

Strategic Plan(s) of Action

The strategic plan of action envisaged by the Institute aims to realize the vision and the mission through the following:-

a) Research & Development

- ❖ To conduct annual survey to identify the priorities and concerns of financial industry in the area of financial sector technology and use the information for aligning the Institute's activities.
- ❖ Development of appropriate models/products in priority areas in technology implementation to address immediate industry needs.
- ❖ Build incubating facilities for development of feasible and cost effective native technology efforts for strategic reasons.

- ❖ To adopt an “Enablers Role”, by facilitating formation of research teams from other reputed institutions such as IITs/IIMs etc., and play the role of a nodal agency in development of technology applications.
- ❖ To continue to pursue collaborative research with governmental agencies and other external organizations through sponsored research projects.
- ❖ To provide opportunities to senior academicians/researchers in the Institute, and contribute to the ongoing training and research activities.
- ❖ To publish (printed / electronic version), to debate and also disseminate information to existing and potential users on emerging financial sector technology areas.

b) Education & Training

- ❖ Interact with top management of banks through field visits of Faculty Teams for awareness creation and address issues in technology implementation.
- ❖ To continue to organize workshops/seminars/conferences on a regular basis and focus on issues in implementing technology initiatives by Banks. The feedback would be used for assessment of immediate & emerging requirements of the industry and for re-defining the research agenda and other activities of the institute.
- ❖ To continue to offer the academic initiatives.

c) INFINET & Services

- ❖ To develop and maintain common state-of-the-art IT infrastructure services for the Banking and Financial sector, with features such as seamless integration, inter-operability, security and reliability.
- ❖ To operate and maintain a state-of-the-art network with ensured high availability and uptime, so as to enable INFINET users to carry out smooth operations of the applications.
- ❖ To provide cost effective, secure and reliable financial and non-financial messaging solutions that enable inter-operability.
- ❖ To support and provide infrastructure to meet the RBI application requirements on an on-going basis.

- ❖ To provide support and advisory role to INFINET CUG (Closed User Group) members on matters related to network and security such as inter connectivity, security architecture etc.
- ❖ To provide appropriate CA / PKI related services, to address the security needs of banks and financial institutions.

Specific Action Plan(s)

In order to ensure the alignment of Institute's activities with the Industry's requirements, it is proposed to structure the interaction of the Institute with the Industry, apart from continuing the existing methods of interaction such as feedback from Members of Research & Academic Advisory Committee (RAAC), IT Chiefs, feedback from participants during executive development programmes etc.

I. Research & Development

Taking into consideration the emerging industry and emerging technology requirements, the Institute proposes to undertake research in the following areas:

- ❖ Network related areas
- ❖ Study and development of upcoming Security Technologies suitable for banking applications.
- ❖ Preparations and advance actions for recent Regulatory Requirements and related Technology Support (Viz. Basel II, Anti-Money Laundering)
- ❖ Core Banking Solutions and Capacity Building
- ❖ Affordable Technology Solutions
- ❖ Payment Systems

a) Creation of Research Infrastructure

The Institute proposes to create research labs for pursuing collaborative research with the banking industry and other academic institutions, to address immediate concerns in the areas such as Technology Outsourcing, Security Solutions, Applications Integration,

Open Source Technologies/Affordable Solutions, and Standards Development etc.

b) Academic, Training & Related Activities

- ❖ To strive to attain Deemed University Status for promoting Banking Technology as an accepted discipline in academia
- ❖ To reorient the Executive Development Programmes in an optimal manner for better percolation of technology competencies in the banking sector.
- ❖ To collaborate with other reputed Institutes both in the country and abroad for jointly conducting EDPs.
- ❖ To conduct Certificate programme in areas such as Enterprise Networking Technologies and Security (CENTS) and other priority areas.
- ❖ To interact on an ongoing basis with Bank Training Colleges etc.
- ❖ To conduct international conferences in collaboration with other reputed Indian and International Institutions.
- ❖ To expand the scope of training programmes to the SAARC and South East Asian countries.
- ❖ To continue academic activities.

II. INFINET & Services

The INdian Financial NETwork (INFINET) & Services is aimed at creating common infrastructure and services to Banking & Financial Sector. The work environment is quite contrast to the Research & Development and Educational Training areas. The services are to be run on 24x7 basis and the Quality of Services (QoS) are being improved to meet the BS 15000 standards. The skill and attitude and the manpower working in these areas have to be at par with those in IT Industry and for the purpose, it is proposed as under:

- Continue to provide common services to the Banking & Financial Sector
- To be hived-off into a separate entity in the next three years

- To begin with it can be created into a subsidiary of IDRBT or alternately in association with Banking Industry
- Draft an appropriate Organization Structure and administrative set-up/staffing plan for the purpose.

The specific action plan(s) under each of the Service areas are as under:

A) INFINET

- ❖ To ensure well defined process management procedures for network operations through ITIL standards and practices and thus ensure quality of service.
- ❖ To establish and maintain 24x7 based support center to provide support / advisory role and share the knowledge base on security related issues with banking and financial institutions in the country which would enable the banking community protect their critical infrastructure.
- ❖ To create a framework for migration of IPV4 to IPV6 and interoperability of IPV4 and IPV6 through Research & Development.
- ❖ To periodically conduct network vulnerability assessment audit and take appropriate action.

B) SFMS

- ❖ To provide value added services such as interfacing the Forex Module with CCIL; set-up commercially viable Service Bureau for all SWIFT users in India; SFMS on Internet; messages for Online Tax Assessment System
- ❖ Provide Common Gateway for Smaller Banks
- ❖ Establishment of DR Site
- ❖ Proactive participation in efficiency enhancement measures of RBI in NEFT, NCTS and other initiatives such as Rural Sector facilitation etc.
- ❖ Complete integration of SFMS and SWIFT achieving STP from the customer end itself

C) CA-PKI Services

- ❖ Technical consultancy covering areas such as – PKI enabling of Banks' legacy applications; New PKI enabled applications for Banks and FIs ; Secure workflow applications in banking domain using PKI

- ❖ Use of secure hardware devices which are Cost effective, modifiable and can be customized

D) NFS

- ❖ Increase the number of participating banks in the ATM switch so that the customers are benefited.
- ❖ Roll out the inter-bank payment gateway for authentication and routing the payment details of various E-commerce transactions, E-governance transactions, etc.
- ❖ Provide value-added service such as:
 - Provide common gateway connectivity to international networks like Visa and Master card.
 - Provide Card management services
 - Card to Card inter and Intra bank money transfer.

E) MMS

- ❖ To facilitate corporate e-mail for the banks, registering and maintenance of domain name services,
- ❖ Proving state-of-the-art technology within a completely secure environment the MMS services provided to RBI and other CUG members
- ❖ **Provision of Mailboxes on IDRBT Mail server** for INFINET members with provision to access the Mail boxes from Internet/INFINET through web-based Interface
- ❖ **Co Location of Web/Application Server** (INFINET members owned Hardware/software, Remote management done by the member, Designed and Developed by the INFINET member and co-located by IDRBT in IDRBT premises along with provision of Secure Internet link and Infrastructure, which includes rack mounting for the servers.

E) Data Center, BCP/DRS

- ❖ For addressing the security concerns and also the need for common infrastructure by the players in the banking Industry, it is proposed to provide services related to Data Center, BCP/DRS etc.,

Human Resources

- ❖ To create a brand for IDRBT that can attract the best talent in all the areas of its operations.
- ❖ To periodically review the policies and practices, for creating and nurturing a “performing “ environment.
- ❖ To provide opportunities to the employees for continuous competency upgradation.
- ❖ To continue to outsource all logistic and other supportive services.
- ❖ Develop the **Faculty Resources** through
 - Increase the Faculty strength to a critical mass size of 25 (with a mix of senior and junior faculty), of which 6 – 8 to be of international acclaim.
 - To identify and develop the competency of Faculty into research area groups, which are in sync with the focal areas of research in the next three years, to ensure that there are at least 4-5 Faculty Members in each of the focal area.
 - Recruitment of Senior Faculty, who could work in-sync with Junior Faculty Members.
 - Nurture the peer group interaction by networking with fellow research fraternity in India and abroad.
 - Promote publications by Faculty in general media/conference/seminars/workshops for awareness creation and image building apart from regular publications in technology journals/magazines.

Chapter IV

IT for the Financial Sector

Current Status

The use of IT in the financial sector traces its roots to the report of the Rangarajan Committee on Mechanisation in Banks (1984). Further developments among the Public Sector Banks have been based on the recommendations of the Rangarajan Committee (second - 1989), the Saraf Committee (1993) and the Vasudevan Committee (1998). The new private sector banks have commenced their operations with large scale use of IT for competitive advantage, and therefore, their IT strategies are mostly business oriented right from the time of inception. Most foreign banks and the older private sector banks also implement IT in a manner similar to the new private sector banks.

The Reserve Bank has been facilitating and playing a proactive role for enabling IT services for the financial sector. A two pronged approach adopted by the Reserve Bank to foster IT implementation in banks is as follows:

❖ **Provision of Products and Services:**

Providing basic common requirements for IT use by the banks. This comprises the network such as the INFINET with the certification authority services, and common critical applications / systems such as ECS, EFT, PDO-NDS, CFMS, RTGS, PKI, SFMS, INFINET, and the National Financial Switch.

❖ **Guidance and advisory role:**

Providing guidelines in the form of Best Practices, Requirements for IS Audit, Standards for IT / IS Systems, message formats, new delivery channels, security requirements etc.

In India, IT implementation by banks for their internal usage as well as for interaction with their customers show considerable divergence, as detailed below:

- ❖ The Public Sector Banks have the biggest challenge since they carry the baggage of legacy procedures and have to change over to latest technology which will have to cater to the needs of all their branches, including those at the rural centres.
- ❖ The foreign banks have systems which are generally based on world-wide implementations.
- ❖ As far as the old Private Sector Banks are concerned, Core Banking solutions are being implemented in metro and urban branches.
- ❖ Among the Co-operative Banks, IT usage is predominantly for a few specific business functions with computerisation comprising essentially of accounts-related activities; the customers of most banks are, therefore, yet to feel the benefits.
- ❖ In the sector comprising the Regional Rural Banks, use of computers as stand alone machines is observed.

International Scenario

IT in banking has been an international phenomenon for more than two decades now. The latest developments include Internet Banking which has gained wide acceptance internationally and seems to be fast catching up in India with more and more banks entering the fray. Markets like Korea and Singapore have nearly 10 percent of their population banking over the Internet. In the US, the number of commercial banks with transactional websites is 1,275. Other salient developments include Mobile Banking, and new service delivery channels in the form of multi function kiosks, ATMs etc., apart from a large scale dependence on card based retail transactions.

Emerging Challenges

- The major challenge staring at bankers in India relates to the need to introduce innovative, customer friendly products and services for which newer technologies have to be brought in multiple areas to reduce the overall transaction costs.
- Traditionally, efforts in technology driven IT implementation has targeted the metros or big urban customers. The time has now come to

make the benefits of IT penetrate to the rural population as well. There may be also a need to provide for multi-lingual facilities, which is a migration from the existing English-only paradigm, in a manner akin to some of the other large countries like China, Korea and Japan.

- If these benefits have to accrue, it will be necessary to have adequate infrastructural facilities. Efficient and effective communication networks hold the key to success in attaining the desired results of network based IT usage for transaction processing systems of banks.
- With large scale dependence on IT, it also becomes necessary that certain essential activities are provided for by banks. These include the setting up of Business Continuity Plans / Disaster Recovery Systems. The role of the IDRBT in providing a secure backbone for inter-bank financial telecommunication also assumes significance. All these are crucial activities which have to be approved by the Boards of the respective Banks.
- The need to train and retrain staff on a continuous basis given the fast paced changes in the IT sector.

Repositioning

While banks have to reposition their strategies to provide for a high IT content which will provide not only for customer benefits but also improved internal decision making based on efficient MIS systems, the efforts of the Reserve Bank in providing the leading lights to banks may also have to be repositioned. The Reserve Bank will be providing generic information on various standards and approaches which have to be utilised by them. Currently, for common inter-bank applications, the Reserve Bank goes to the extent of providing the Common Minimum Requirements. This may have to change in the days to come, and the generic requirements alone would be provided by the Reserve Bank. User institutions may be free to choose their own adoptions of these to arrive at best possible configurations for their own success. The key to this will be in ensuring inter-operable systems which have the capability and to seamlessly integrate with the existing systems in banks.

At the same time it will be necessary for the banks to ensure that the technology plan has the approval of the Board of Directors and has as essential ingredients, the scheme for IS Audit as also Business Continuity Plan.

The efforts of the Reserve Bank will also be towards percolation of technology efforts to all types of banks and all sections of the customers in the banks with specific reference to the rural areas, and the use of affordable technology products which can be easily used by the target clientele, with inter-shareable resources.

Further it will be the endeavour of Reserve Bank to put in place standards on par with international practices and ensure that all banks adhere to these standards. As far as the critical minimum requirements are concerned, all banks will have to ensure full compliance while for other standards, they could follow the approach best suitable for them, but within the overall prescriptions of the Reserve Bank. In achieving this, the following will be also ensured:

- ❖ Compliance to the laws of the land
- ❖ Adequate technological upgradation to meet the requirements
- ❖ Inter-operability of the standards
- ❖ Educational efforts to all the constituents

Chapter V

IT for Government related functions

One of the major functions of the Reserve Bank is to act as the Banker to the Government. The Reserve Bank is making all-out efforts to bring in efficiency in the financial sector by way of encouraging the banks and bringing in products for reduction in delays in providing quality service to the customers.

Current Status

The operations in the Public Accounts Department (PAD) of the Reserve Bank which is providing services to the Government are computerised but end-to-end transaction processing is not through STP as the Government has not yet fully geared in this regard. In the late eighties, computerisation of the Central Accounts Section (CAS) of the Reserve Bank of India, Nagpur was completed. This facilitates in providing a consolidated daily position of the Government accounts maintained at CAS, Nagpur. This daily position of the Government accounts is informed to all the treasuries and banks. So far the emphasis was on computerising the branches of banks dealing with Government transactions, which has since been achieved.

Computerisation of Government transactions would require the attendant computerisation of the respective government departments as well. The levels of computerisation have shown increasing trends in the Government such as in the case of the Controller General of Accounts who are now obtaining the data from CAS electronically for their use. Also the Finance Departments of the State Government are also accessing account information through the CAS website to download data for use. With the implementation of the secured internet website, two way communication is possible, apart from information dissemination by the Reserve Bank alone.

Recent initiatives in the collection / payment of Customs Duty, Direct Tax and Indirect Taxes using IT has provided a fillip in this regard. The Customs EC / EDI project has gained momentum and the custom ports have been computerized for exchange of information / documents electronically. The payment information is also linked to this with the identified branches.

The Online Tax Accounting System (OLTAS) for collection of direct taxes is stabilizing well. This system, along with the Online Indirect Tax Accounting System (OLITAS) for collection of excise and other duties as well as service tax, enables quicker transfer of proceeds to the Government than hitherto, with the use of IT. The system also enables the Government to get information related to tax payments from assesses through the banking channel, in addition to accounting information. Such initiatives would facilitate the Government with quicker inflows.

In addition, the refund of the tax through the Electronic Clearing Service (ECS) has also been agreed to by the Income Tax Department for quicker, efficient and customer-friendly mode of tax refunds for assesses. The ECS data, after processing, is generally given back to the user only in the same medium as given by the user; in the case of Income Tax Department one set of data is forwarded to the Zonal Accounting Office as well, in addition to the Income Tax Department. It is expected that this facility would be used from the year 2004-2005.

It may be also necessary that all disbursements by the Government are also made to the beneficiaries using the benefits of IT.

International Practices

There are varied approaches towards handling Government business in different parts of the world. In many countries, Government business is not a function assigned to the Central bank; in others there are different tiers performing the overall function. The growth in use of E-Governance or the conduct of government business using IT is a thrust area for most Governments across the world, although the progress is slow in most of the countries in this area including the advanced countries. The will of the government for the change to provide information and reducing frauds and being transparent is the driving force behind increased use of IT. The initiatives are mainly in the areas of tax collection and customs.

In India many initiatives have already been taken by most states as well as by the Central Government. The collection of payment data is being received / downloaded directly by the treasuries – but still the dependence on manual receipt of the information by way of statement is adhered to.

Challenges

The challenges that are seen for embracing IT for payments / financial transactions

- Procedural changes would be required
- Amendment to the treasury rules for e-Governance
 - A group has been formed by the Government for amending the Treasury Rules for Image based clearing as part of the Cheque Truncation pilot project
- Computerisation of the Government Departments is essential
- In the electronic mode, Digital Signatures is the major requirement. For the banking sector, the Certification Authority is IDRBT; for the Government the National Informatics Centre will be the Certification Authority. For effective transfer of messages in this scenario, cross certification would be required to be implemented by the Controller of Certifying Authorities of the Government of India,

Framework to achieve the above

For ensuring the above, close co-ordination with the Government would be required. The secured website established by the Reserve Bank, provides for details of the transactions of the Central / State Governments through the Internet. The secured website has the capability of two-way communication as well. The government has to gear up to forward / receive the information through this method. As far as the banking sector is concerned, as per the CVC guidelines, 100% business of the Public Sector Banks will be computerised – so the financial sector interaction with Government would be achieved once this is accomplished. The focus would then have to be to computerise the link points of the Government departments.

Roadmap

As a policy, the retail activities done by the Reserve Bank are to be hived off or entrusted to a separate entity / banks. This approach has already resulted in the new MICR based cheque processing centres to start with, being managed by commercial banks. For retail payment systems, it is envisaged that a separate entity will manage them, as outlined in the Payment Systems Vision Document. In consonance with this approach, at the centres where RBI is not having its office the government transactions are being performed by identified banks. A time bound action plan to ensure complete IT based functioning in this regard will be formulated with implementable action points.