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Fast Forward

NEWSLETTER

INSTITUTE FOR DEVELOPMENT AND RESEARCH IN BANKING TECHNOLOGY

(Established by Reserve Bank of India)

IDRBT's Medium Term Framework

The Institute, through its various initiatives, has been spearheading the absorption of technology, in the Indian Banking and Financial Sector. It has made significant contributions in every aspect of bringing in the best of technology for the benefit of the Sector.

Established by the Reserve Bank of India, in the year 1996, with a view to promote technology absorption in the Banking and Financial Sector of the country, the Institute will shortly be completing a decade of existence. It's time to evaluate the contributions made and plan for the path ahead.

The Institute has prepared a Medium Term Framework (MTF) for the next three years. The MTF encapsulates the current scenario including the issues and challenges faced by the Banking and Financial Sector. It also discusses the Institute's vision and the mission for the Institute.

The MTF analyses the stumbling blocks and presents a strategic plan of action that defines the broad parameters in each of the areas. The specific plan(s) of action defines the targets that are to be achieved by the Institute for realising the vision.

The MTF enunciates the steps proposed to be initiated by the Institute in each of the areas/activities of the Institute, i.e. Research and Development, Education and Training, Common IT Infrastructure Management, Advisory and Consultancy Services, and more importantly, playing a Catalytic role in interfacing Academics with the Industry.

The draft MTF is available on the Institute's Website (www.idrbt.ac.in) and also in the Chapter III on IT & IDRBT, of the Financial Sector Technology Vision Document, available on the RBI Website (www.rbi.org.in).

The Institute has received feedback from the banking & financial fraternity, and the MTF is being finalised taking into account such feedback.

Shri S. S. Subramanian, CGM, IDRBT; Shri R. Gandhi, In-charge Director, IDRBT, and Regional Director for Andhra Pradesh, Reserve Bank of India; and Shri. A. P. Hota, CGM, Department of Payment and Settlement Systems, RBI; at the Conference of IT Chiefs, organised on July 04, 2005 at the IDRBT

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Conference of IT Chiefs

A Conference of the IT Chiefs of Public and Private Sector Banks, was organised on July 04, 2005, to deliberate on issues relating to IT Infrastructure Management, Delivery Channels, RBI and IDRBT Initiatives. This conference was of crucial significance since this was the first occasion when the scope of the conference was enlarged to bring in the Private Sector Banks.

Shri S. S. Subramanian, CGM, began the proceedings with the welcome address, wherein he recalled the active role being played by the IDRBT through various initiatives such as INFINET & Services, Research & Development and Educational Initiatives. He pointed out that the conference was an ideal forum to deliberate and strategise on issues of importance for the Banking Industry.

Shri R. Gandhi, In-charge Director, IDRBT, and Regional Director for Andhra Pradesh, Reserve Bank of India, then delivered the keynote address on "IT Infrastructure Management for Efficiency & Security". He stressed on the crucial need for IT Infrastructure Management in the present scenario when there is a paradigm shift from the earlier model of batch processing to online real-time processing.

"Specialised IT Infrastructure Management was required in view of the complex business scenarios, increasing demand of customers and service levels, stress on uptime and business continuity, and more importantly, because these impact directly on the success or failure of an organisation," he pointed out. Shri Gandhi also made a case for platform independent applications, regularisation of diverse infrastructure, and uniformity in various areas such as Network and Security Design and Deployment.

This was followed by a panel discussion on "Legal Issues & Security in IT Infrastructure Management". Shri P. S. Bindra, Joint Legal Advisor, RBI; Shri D. Krishnamurthy, General Manager (IT), Bank of India; Dr. Ashutosh Saxena, Faculty; Shri V. Visweswar, and Shri N. Rajendran, DGMs, were on the panel. The key issues that emerged from the discussions include:

- Laws must be amended appropriately so as to match the pace of changes in technology
- Idea of time stamping documents along with digital certificates was mooted as a measure to preserve electronic records
- Storage processes need to be standardised across the Industry
- Traffic classification was essential and logs of different equipments must be stored so as to identify the sources of wanted and unwanted traffic on networks
- Need for checks and balances on service providers to help curb malpractices while providing services to banks
- Responsibilities and accountability of IT officials in the banks need to be clearly defined
- RBI/IDRBT may set up a special task force to study, analyse and recommend measures to sort out legal issues in the Industry

Shri N. Rajendran and Shri V. Visweswar, DGMs, IDRBT; Shri D. Krishnamurthy, General Manager (IT), Bank of India; Shri P. S. Bindra, Joint Legal Advisor, RBI; and Dr. Ashutosh Saxena, Faculty, participating in the Panel Discussion on Legal Issues & Security in IT Infrastructure Management

In the next session, Shri V. Balaji, Vice President, Yes Bank Limited, presented a Case Study on Outsourcing, which shared Yes Bank's experiences in outsourcing their entire operations, especially in the context of not inheriting any legacy and starting operations within a short span of time.

Thereafter, Shri Ganesh Kumar, GM, DIT, RBI, briefed the delegates about the Financial Sector Technology Vision, wherein he presented the RBI's vision on Migration to e-reporting, Basle II, AML, CDBMS as a DSS and the path to overcome the challenges being faced by the Banking Sector.

Shri A. P. Hota, CGM, DPSS, RBI, presented the three year plan to achieve the RBI's vision of "the establishment of safe, secure, sound and efficient payment and settlement systems for the country," which included:

- **Within a year:** Setting up of an Organisation owned by banks, Establishment of NSS in the four metros, Implementation of Cheque Truncation System, Evolving of Standards for MICR CPC, Electronic Funds Transfer Facility (RTGS, NEFT) at 500 centres and 10,000 branches, readying the comprehensive Payment System Bill
- **2006-2007:** Extension of MICR CPC to 20 centres, Cheque truncation at major centres, MICRisation of every Cheque, Tie-up with Post offices
- **2007-2008:** Off-city back-up arrangement, full-fledged operations, NSS to cover all major centres

Ms. Chanda Kochhar, ED, ICICI Bank, started the post lunch session with her keynote address on "Making the Channels Deliver". She deliberated in detail upon the Changing Banking Paradigm, Growing Importance of Channels, Channels of Future, and the Challenges that need to be overcome for Making the Channels Deliver. She also shared the Bank's experience in implementing the push and pull strategy, which resulted in a shift of the

Ms. Chanda Kochhar, Executive Director, ICICI Bank, delivering the keynote address on Making the Channels Deliver

transaction load from branch to alternate delivery channels, resulting in better service to customers.

This was followed by the Panel Discussion on "Delivery Channels". On the panel were Shri V. Venkatesh, Banking Consultant, Shri K. R. Nimbalker, General Manager (IT), Indian Overseas Bank, and the IDRBT Team consisting of Shri. D. P. Dube, Shri. M. V. Sivakumaran, Faculty and Shri. V. Gunasekaran, DGM. The key issues that emerged from the discussions include:

- Stress should not be only on providing delivery channels but also on the necessity of servicing those channels and learning from various experiences
- Customer authentication was a prime concern and so, a two-factor authentication through the use of RFA Token/RFID/DEA, etc, along with username and password was essential for enhanced security
- Need for finding a way out of the phishing menace through an anti-phishing forum/ log analysis, and correlation of logs from various devices was essential
- Banking Industry must have Insurance facility against cyber crimes
- Branch as a delivery channel continues to be relevant as it helps to remain in touch with the customer

- There is enough potential for the banks to increase their profits through judicious use of the ATM channel
- A model through which the ATM segment of the delivery channel for all banks could come under a single umbrella and which could be regulated through a national organisation was proposed
- A more specific study may be carried out and the above proposal may then be debated to help the banking community in utilising the ATM channel better

Thereafter, the heads of INFINET, Certifying Authority, SFMS and NFS updated the forum about the current initiatives in their respective areas and the proposed developments.

Shri. K. S. Bajwa, GM (IT), PNB, then presented a case study, providing a brief account of the initiatives undertaken by the PNB on Delivery Channels. He extended an invitation to all banks to use PNB's facilities, and help avoid infrastructure duplication and save costs.

Shri K. R. Nimbalker, General Manager (IT), Indian Overseas Bank; Shri V. Venkatesh, Banking Consultant; and the IDRBT Team of Shri M. V. Sivakumaran, Faculty; Shri. V. Gunasekaran, DGM; and Shri D. P. Dube, Faculty; during the Panel Discussion on Delivery Channels

He stressed upon the need for public sector banks to pool their resources, for it would otherwise be impossible to survive in a highly competitive market.

Shri R. Mani, Conference Coordinator, proposed the vote of thanks.

National Financial Switch

Presently, the National Financial Switch (NFS) is live with Allahabad Bank, Andhra Bank, Bank of Baroda, Corporation Bank, Dhanalakshmi Bank, ICICI Bank, IDBI Bank, Oriental Bank of Commerce, Punjab National Bank, South Indian Bank, Tamilnad Mercantile Bank Ltd., The Jammu and Kashmir Bank Ltd., and United Western Bank.

The NFS now connects over 5050 ATMs, which is the largest number of ATMs under a single network in the country. The volume of daily transactions on the network presently is around 8000.

In order to explain about the benefits of the NFS, fine-tune the NFS Services, and obtain feedback from the Industry, the Institute organised a one-day workshop on June 06, 2005. Thirty Seven participants from various banks participated in the workshop.

The Institute also organised a meeting of the NFS User Group on July 05, 2005, which was attended by top officials viz., Business and IT heads from the NFS member banks. The meet discussed and reviewed the NFS services, Settlement Guarantee Fund, Strategy for expansion of NFS Network, Future Roadmap, and general operational issues. The NFS Standing Committee was also constituted in the meeting.

The NFS Standing Committee would guide and help in NFS operations on an ongoing basis, to ensure that the NFS offers better and enhanced quality of service to the member banks. The transaction charges too came in for discussion and the members felt that the charges should be made more attractive and in line with international and local networks.

A help desk has been implemented at the NFS and all support calls are logged in on a day-to-day basis.

Structured Financial Messaging System

- SFMS Ver. 3.0 is now functional in all Public Sector Banks, except in State Bank of Travancore and State Bank of Mysore. The Catholic Syrian Bank, ICICI Bank, HDFC Bank, HSBC Bank and ABN Amro are the new entrants from the Private Sector
- The installation of SFMS at various RBI Offices is completed and IDRBT has enabled SFMS to interact with Core Banking software in a few banks
- To provide a cost-efficient solution, the Institute has ported the Gateway and the Online Server on a single box, enabling banks to participate in various applications like NEFT, Forex, etc.
- The Institute carried out an internal exercise of benchmarking various web applications like Pramati, Borland, Websphere and Web Logic, enabling the banks to implement SFMS, with the freedom to select the application of their choice based on the volume of traffic and the number IFSC supported by the on-line branches
- The development of Forex Module as an add-on to the SFMS, at the request of the banks made during the IT Chiefs Meeting, has been completed and steps have been initiated to test the end-to-end flow of message from SFMS to SWIFT at DEIO of RBI
- Steps have been initiated for the establishment of a Service Bureau (SB) for all SWIFT Users in India, and many banks have responded positively. A White paper has been circulated to the banks highlighting the concept, model and the possible cost saving on joining the SB. Meanwhile, the SWIFT have agreed in principle to the idea of SB being established by the IDRBT
- A Common Gateway for use by the small banks has been ported in IDRBT. The National Financial Switch would, also use this gateway, for sending inter-bank settlement transactions
- In a step towards making available the SFMS on Internet, Client Interface through SFMS and a few fund settlement messages have been made available on Internet
- The standardisation of Category 5 messages as per ISO 15022 is underway

Indian Financial Network

Indian Financial Computer Emergency Response Team (INFICERT)

The Institute is in the process of developing a portal on INFICERT for the benefit of INFINET CUG members. This portal would disseminate information that would facilitate Incident Handling/ Remedial Response to the Banking and Financial community.

The Institute is also in the process of analysing different tools available for Incident Handling/Remedial Response. After evaluation of the tools, the Institute would initiate the process of procurement and deployment of the tools.

Migration of IPv4 to IPv6

The Institute has initiated a study and analysis, as part of the project for migration of IPv4 to IPv6. The study entails analysing the existing set up and infrastructure in CUG member networks so as to smoothly implement an IPv4 to IPv6 migration plan for the existing network infrastructure.

The Institute also proposes to gather information from CUG members through a comprehensive questionnaire, which will shortly be available, on our websites - http://www.idrbt.ac.in and http://infinet.org.in.

IT Infrastructure Management

Shri R. Gandhi, In-Charge Director, IDRBT

IT infrastructure has meant, for long, the hardware and software, and if at all, the related network. Managing it meant procuring and installing them. The rapid pace of competition and growth compelled organisations to do 'vertical thinking', and consequently, the IT Infrastructure has been redefined. It now starts from where it should – the IT policy and strategy, the plan and design of IT architecture, the business process of procurement, installation and management of hardware, software, network and other related equipments, tools and facilities, IT personnel and expertise, IT security arrangements and administration, IS audit, application development, integration and management, vendor management and so on.

Moreover, today's IT infrastructure has become all pervasive – it encompasses front, back and middle offices, covers customers, suppliers, employees and partners, and permeates all type of operations like strategising, planning, manufacturing, servicing, etc. In the process, mission critical business processes heavily depend on IT infrastructure. Yet another development is that this IT infrastructure is getting increasingly complex and specialised, compelling institutions to develop expertise and specialities in these areas.

This transition is putting increasing demands on the performance, capacity, availability, and agility of underlying IT infrastructure. As process timelines are compressed from weeks or days, to hours, minutes or even seconds, the cost of downtime skyrockets. From supplier and customer transactions, to employee communications and financial reporting, business-critical functions must be up and running at all times. Business availability and continuity is critically poised on and directly correlated to and depends on the capacity, availability and reliability of the IT Infrastructure.

An organisation's infrastructure management should address the availability, fault and performance management of its IT infrastructure, and so IT Infrastructure Management must cover:

- Optimisation of the IT infrastructure to meet business needs for high availability, reliability and scalability
- IT infrastructure monitoring and testing technologies that deliver service assurance
- Technologies needed to build business service views
- Capacity-planning processes and best practices
- Enterprise Customer Relationship Management
- Managed Services including Business Processes Management and Hosted Services

Need for High Availability

Achieving high service availability to meet growing needs requires a combination of people, processes, and technology, including highly reliable platforms, extensive hardware and software testing, rigorous change management, redundant architecture, highly trained staff and well established emergency procedures.

With a sufficient investment, virtually any level of availability can be achieved. Yet costs can be prohibitive, especially as organisations strive to increase availability guarantees from 3-nines (99.9 percent uptime), to 4-nines (99.99 percent), to 5-nines (99.999 percent) and up.

Three high-level strategies are crucial to contain the total cost of ownership (TCO), while addressing increasing availability requirements:

- ***Standardise Infrastructure and Operations*** — Enterprise standards are essential to optimise the business value of IT, while reducing total cost and risk. Industry standard solutions magnify these benefits. They are more flexible and affordable than proprietary solutions, and are now capable of supporting the most-demanding, business critical environments.

- ***Focus on Service Delivery*** — The business value of an application depends on the ability of end-users to access and use the application, as well as any broader service it might support. That service may depend on multiple applications, servers, networks, etc., and these relationships must be considered in assessing availability requirements.
- ***Measure the Business Value of High Availability*** —This allows standard ROI metrics to be established, so decision-makers can align high-availability investments with the actual business value they deliver.

Trends in IT Infrastructure Management

Now, let us survey the recent trends across the developed world, which pose their own challenges and raise several issues such as:

Business Process Management Services

Many large enterprises now view sourcing and services provisioning as the only practical alternative for meeting their IT infrastructure, applications, management and operational goals. While selective sourcing of IT infrastructure, operations and management services has proven to be much less risky and more successful than the earlier all-or-nothing sourcing approaches, business managers must clearly understand the potential and pitfalls that selective services and sourcing entails.

Business Process Management Services should focus on the evaluation, negotiation, implementation and management of sourcing transactions in order to meet business objectives and minimise risks. It involves identifying mature operational areas that could be competitively sourced.

Sourcing assessment should cover a quick study of the business case for proceeding with a sourcing strategy or to determine the viability of sourcing as a business alternative. It should evaluate the current environment and costs relative to the market to test viability and be prepared to go forward with a sourcing transaction if results indicate sourcing is a viable option.

We should develop Competitive Sourcing Strategies like Total and Selective Outsourcing Strategies and Solutions, Performance Work Statement, Management Plan (Most Efficient Organisation, Technical Performance Plan, Transition Plan, In-House Cost Estimate), RFP Preparation, Response Reviews, Process and Service Improvement.

Hosted Services

The primary benefits of infrastructure management and operations sourcing includes initial and ongoing cost reduction, and the provision of higher quality, better performing, more robust, and dynamically scalable solutions than could be developed and deployed internally. In addition, by sourcing their infrastructure and operations, business and technical managers can focus on their core business, with the flexibility to exploit emerging technologies and new global business opportunities. These services include:

- Networked infrastructure management services
- Remote server management
- Security services provisioning
- Business continuity services
- Web hosting solutions
- Systems management
- Storage management and storage service providers
- Monitoring and management services
- Service management/services automation tools
- Enterprise application delivery systems and application service providers

Improving network efficiency is highly critical. One of the IT manager's worst nightmares is having a key system crash or having data compromised. These risks can be

eliminated through managed services, which provide confidence in business continuity through:

- Secure facilities
- Secure systems
- Distributed and redundant sourcing of power, data and processing
- Timely disaster recovery
- Scalability
- Highly experienced staff with appropriate security clearances

Customer Services

Is your organisation presenting one face to the customer through the web? Email? Call centers? Can your customers be serviced 24x7? Are you operating at your maximum efficiency? Integrating your customer interactions across all channels can drastically improve the level of service provided to the customer.

Focussing on the following areas will enable you to deliver world-class service support and enhance your customers' value:

- Channel Management (Single view of customer, Cost-to-serve Analysis)
- Contact Center Optimisation (Operational efficiency, Process optimisation, Diagnostic)
- Online Self Service
- Content Management (Portal design & development, Single face to customer, Fulfillment)

Application Management Services

Today, all types of applications are available as hosted or managed solutions. These offerings range from horizontal systems applicable to all classes and sizes of organisations, to niche systems limited to very narrow vertical market segments.

Similarly, the number and scope of application management services that are available today are increasing rapidly and are just as equally rapidly being employed by the largest organisations in the world. Unfortunately, few business and technology managers know that these new solutions and services exist, to say nothing of the process of selecting competitive offerings. These services include:

- Application management
- Hosted vertical market solutions
- Application management trends
- Software as a service
- ERP and back-office applications options
- Hosted desktops and front-office systems
- Hosting options for wireless services
- Technical evaluation and selection
- Managed applications and e-services including:
  - Procurement
  - Supply chain
  - Content management
  - Email, Groupware and collaboration
  - Virtual office solutions
  - Data warehousing
  - Storage
  - Software development and testing
  - e-Marketing, etc.

Governance in IT Infrastructure Management

In the rush to reduce costs, increase IT quality and increase competitiveness by way of selective IT sourcing and services, many organisations do not consider the management side of the equation. The predictable result of this neglect is overpayment, cost overruns, unmet expectations and outright failure.

In order to avoid such mishaps, organisations need to spare a keen eye on Negotiating service level agreements (SLAs), Using third party negotiators, Performance metrics/ROI, Service options of Web hosting companies, Establishing security-related Service Level Agreements,

(Con'td on Page 12)

Executive Development Programmes Review

Workshops on SFMS

The Institute organised five workshops on Structured Financial Messaging System since March 2005, training over 120 participants from various Banks and Financial Institutions.

Right from providing an overview of the SFMS to imparting intensive hands-on experience on various aspects of the system including Installation of Offline Server, SFMS Functionality, SFMS Troubleshooting, Digital Certificates and Smart Cards for SFMS, Online Application for Certificates, SFMS Messages, these workshops provided an in-depth understanding of just about every aspect of the SFMS.

Shri R. Mani, DGM, co-ordinated all the five workshops.

Financial Risks & Asset Liability Management

A six-day programme on Financial Risks and Asset Liability Management was organised from April 25-30, 2005.

Liquidity Risk Analysis, Interest Rate Risk Analysis, Bond Valuation, Duration Analysis, Bankruptcy Prediction via Soft Computing, Forex Risk Management, Investment Risks and Models, Risk Management, Risk Financing and Insurance, Basel II Framework, Regulatory Concerns, Implementation Issues, Credit Risk and Rating, Operational Risk, Forecasting Techniques and Regression, and Comparative Analysis of Banks' ALM, were some of the areas deliberated upon.

Dr. V. N. Sastry, Associate Professor, co-ordinated this programme, which was attended by 25 participants from various Banks and Financial Institutions.

Workshop on Banking Deliverables: Technology and Value Appreciation

A Workshop on Banking Deliverables: Technology and Value Appreciation, was organised on June 02, 2005, at the Institute. Dr. Rajagopal, Professor of Marketing, Business Division, Monterrey Institute of Technology and Higher Education, Mexico, conducted the workshop.

The workshop was of particular relevance to the Indian Banking Sector, which is currently transforming itself through adoption of technology, in almost every sphere of activity. This process, of course, entails huge investments and therefore, value appreciation and return-on-investments is of critical importance to the Industry. This workshop was an attempt to sensitise the participants on how to ensure that various deliverables are met with and leveraged to earn maximum profits, in the new technology-enabled scenario.

Shri R. Gandhi, In-charge Director, IDRBT, started off the proceedings with his inaugural address focussing on the need for the Industry to re-orient itself to reap the benefits of technology. "We need to have an understanding of how technology is ushering in change across various countries, so that we can enrich and learn from those experiences." he pointed out.

Dr. Rajagopal began his talk with "Delivering Services: The Cutting Edge", which presented various "Strategies for growth in service-intensive businesses, building competitive advantage, customer satisfaction, loyalty and retention, market segmentation and differentiation". The next session focussed on "Banking Technology – Managing Customer related innovation".

"Value Exchange Marketing" was the area of focus in the next session. Need Analysis, Value Paradigm, Value

Governance, Taxonomy of Values, Value Gaps, and Value Teams, came up for deliberations. The final session saw discussions in the area of "Measuring Customer Value and New Services."

Shri V. Visweswar, DGM, coordinated the Workshop.

Workshop on Valuation and Management of ICT-IPRs

The Institute in association with the Indian Institute of Science, Bangalore, organised a Workshop on Valuation and Management of ICT – IPRs, on June 10, 2005.

Shri R. Gandhi inaugurating the Workshop

Sponsored by the Ministry of Communications and Information Technology, Government of India, the workshop addressed issues pertaining to Knowledge Assets involved in Information and Communication Technology, Valuation of Software with regard to its Intellectual Property and shared experiences in the area of Licensing and Technology Transfer and their management. The workshop spread over eight sessions, which focused on:

- IP Management, Licensing and Technology Transfer
- Nature of Software - Evaluation for Intellectual Property
- Value Creation through Intangibles
- IP Due Deligence in Business Transactions
- Assessment and Valuation of Inventions and Research Results
- Open Source is not Public Domain
- Open Source Software and Solutions

Designed to benefit the IT personnel in Banking and Financial Institutions, Software Companies and professionals involved in the Purchase and Upgradation of the various applications in the area of Information and Communication Technology, the workshop also discussed the recently promulgated Right to Information Bill and its Implications on Intellectual Property. Shri V. Visweswar, DGM, coordinated the Workshop.

Software Engineering for Banking and Financial Applications

This four-day programme, conducted from June 13-16, 2005, introduced various conceptual and functional aspects of Software Engineering, focussed on the Banking and Financial Sector.

Software Development Life Cycle, Object Oriented Analysis & Design, Unified Modelling Language, Software Implementation in Banks, Software Project Management, Software Cost Estimation, System Design Techniques and Tools, Capability Maturity Model and Core Banking were amongst the issues deliberated during the programme.

Dr. Mahil Carr and Dr. M. R. Patra, Assistant Professors, co-ordinated the programme.

Network and Security

The Institute organised a programme on Network and Security from June 20-25, 2005.

The topics covered include Network Basics, WAN Technology, IPv4 & IPv6, Router Fundamentals, Routing

Protocol - OSPF & RIP, Cryptography Protocols, PKI & Applications, Network Security, BCP-DR Implementation, Critical Information & Infrastructure Protection, Threat Analysis, NMS, VMS, Internet Banking Security and e-Security.

Shri N. Rajendran, DGM, co-ordinated this programme, which had Thirty Two participants.

Workshop on PKI and Digital Certificates

This three-day workshop was organised at the Institute from July 11-13, 2005.

The areas of exposure in this workshop include Public Key Infrastructure, Certifying Authority Services, Cyber Law and IT Act 2000, Smart Cards Technology, Network Security, PKI and VPN, RBI Applications, PKI-enabled e-mail, and Certificate Management. Hands-on exposure was provided on Smart Card Tokens, Online Certificate Application, Certificate Download and Workflow.

The workshop, attended by 22 participants, was co-ordinated by Dr. N. P. Dhavale, DGM.

Enterprise Network Security

The programme on Enterprise Network Security, spread over six days from July 18-23, 2005, was designed to equip and train the participants in various issues related to Applying Technology and Securing Technology Resources.

Need for an Enterprise Network, Essentials of Networks, LAN and WAN Protocols, Addressing Schemes and IPv6, Network Devices, Designing LAN and WAN, Routing Protocols, NAT, PAT and Access Controls on Routers, DHCP and DNS, Remote Access Service, Perimeter Security, IP Sec and VPN, Network Vulnerabilities, Database Security and Ethical Hacking were some of the issues deliberated upon.

Participants were also provided hands-on experience during the programme. Ms. V. Radha, Assistant Professor, co-ordinated the programme.

Certifying Authority Services

The IDRBT Certifying Authority has issued over 25,000 Digital Certificates, which accounts for 70% of the digital certificates issued by all CAs put together in India, as per Information Technology Act 2000.

The Banks and Financial Institutions are using the Certificates issued by IDRBT CA for Corporate E-mail, RTGS, SFMS, Web Servers used for Internet Banking, CFMS, EFT/ECS and CCIL Settlement Applications.

Placements

The Institute facilitated placements for students of both its academic programmes - M.Tech. in Information Technology (with specialisation in Banking Technology and Information Security) and Post Graduate Programme in Banking Technology Management.

Both Public and Private Sector Banks, participated in the placement process, organised in March 2005.

Working Paper on Y2K38

The Institute has released its Working Paper No. 9, which is on Y2K38. Authored by Dr. Ashutosh Saxena, Associate Professor, IDRBT, and Shri Sanjay Rawat, the paper explains the causes of Y2K38 and also provides solutions for it.

Please write to publisher@idrbt.ac.in, for a softcopy of the paper.

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Cost analysis and budget considerations for infrastructure, operations and management outsourcing, Metering, Service Level Agreements and relationship management, Service level management, Managing the sourcing process, Customer/user relationship and support issues, Contract negotiations, out clauses, escalation procedures, Penalties for non-performance, Employing external measurement services, Contracting, staffing and outsourcing options, etc.

The path ahead

The Banking Industry in India has been leveraging IT for its business for the past twenty-five years. However, the technology adoption and therefore the creation of IT infrastructure have not been uniform across all the banks. However, the noteworthy feature is the common direction in which all members of the industry are traveling, i.e. towards ever increasing use of IT.

As 85% of our banking industry is still to fully husband the benefits of the connectivity, issues on Networking and Security is of immediate relevance. And, as we increasingly eliminate manual processes and records and rely on electronic records, we need to create general awareness, processes, case laws, conventions, best practices, etc. for ensuring legality of e-records and data.

Forthcoming Programmes Calendar

DURATION	PROGRAMME/WORKSHOP
Aug 16-18, 2005	Workshop on PKI & Digital Certificates
Aug 22-25, 2005	Workshop on SFMS
Aug 29-31, 2005	Business Continuity & Disaster Recovery Plans
Sep 12-17, 2005	New Payment Technologies & Trends
Sep 19-24, 2005	Information Systems Audit
Sep 26-28, 2005	Advanced Security Trends
Oct 03-08, 2005	Network & Security
Oct 17-20, 2005	Workshop on SFMS
Oct 24-26, 2005	Information Security Awareness for Senior Management
Nov 07-12, 2005	Software Engineering for Banking & Financial Applications
Nov 16-18, 2005	Data Warehousing and Data Mining
Nov 21-25, 2005	Payment Systems & Security Technology
Nov 28-03, 2005	Enterprise Network Security

DURATION	PROGRAMME/WORKSHOP
Dec 05-07, 2005	Basel-II & Management of Operational Risk
Dec 12-15, 2005	Workshop on SFMS
Dec 19-21, 2005	Advanced Security Trends
Dec 26-28, 2005	Workshop on PKI & Digital Certificates
Jan 09-14, 2006	Financial Risks, ALM & Decision Technologies
Jan 16-21, 2006	New Payment Technologies & Trends
Jan 23-24, 2006	Workshop on Smart Card & Security Mechanisms
Feb 06-09, 2006	Workshop on SFMS
Feb 13-18, 2006	Technology Audit for Banks
Feb 20-22, 2006	Workshop on PKI & Digital Certificates
Feb 27- 03 Mar, 06	Workshop on Business Intelligence
Mar 13-16, 2006	Workshop on SFMS
Mar 20-25, 2006	Information Systems Audit

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