Conference of Chiefs of Public Sector Banks on INFINET and Technology Upgradation
(December 7, 1999)

The Conference was organised by IDRBT at Hyderabad on Tuesday, the 7th December 1999. The Inaugural Function, held in the IDRBT Auditorium, was attended by a large number of dignitaries, special invitees, delegates, the press and the electronic media. Dr. Bimal Jalan, Governor of the Reserve Bank of India graced the occasion as the Chief Guest.


Dr. V.P. Gulati, Director, IDRBT, welcoming the dignitaries. Seated on the dais, from left to right, are : Dr. Y.V. Reddy, Dr. Bimal Jalan, Shri S.P. Talwar, Dr. A. Vasudevan and Shri K.R. Ganapathy.

Dr. Y.V. Reddy, Shri. S.P. Talwar, Deputy Governors of RBI, Dr. A. Vasudevan and Shri M.G. Srivastava, Executive Directors of RBI, and the Members of the Governing Council of IDRBT were part of the galaxy of dignitaries present.

Dr.V.P. Gulati, Director, IDRBT, delivered the Welcome Address. The Director traced the recent developments in technology with special reference to banking and electronic commerce. He briefed the august gathering on the initiatives taken by IDRBT for technology upgradation in the Banking Industry. Dr.Gulati mentioned with pride that setting up of the INFINET, a nation-wide communication backbone for the Banks and Financial Institutions, is a landmark achievement for IDRBT in particular and for the Industry in general. Nearly 337 VSATs have been commissioned and a 100 more are to be commissioned shortly, to spread the wings of INFINET far and wide, he said.

In his Inaugural Address, the Governor, Dr. Bimal Jalan emphasised the urgency for technology upgradation in the Public Sector Banks to improve customer service and productivity and to meet the emerging challenges of competition and globalisation in the banking industry. He complimented the efforts taken by IDRBT for setting up the INFINET backbone for inter-bank
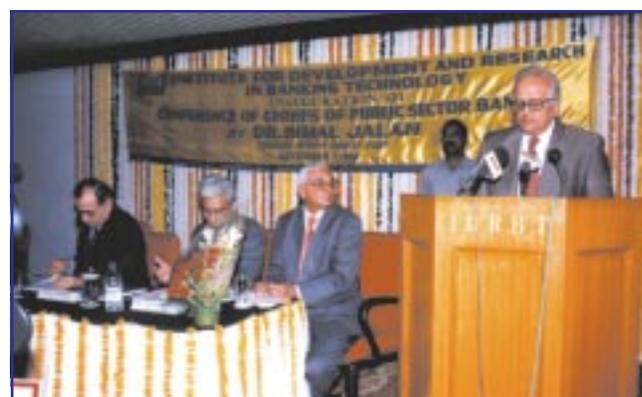
The Governor ... delivering the Inaugural Address.

communication. He exhorted the Bank Chiefs to take steps for early implementation of the recommendations of the Committee on Technology Upgradation headed by Dr.A. Vasudevan, ED, RBI.

Dr.A. Vasudevan in his address highlighted the focus of the Recommendations made by the Committee on Technology Upgradation. He emphasised the key role to be played by IBA and the Bank Chiefs in implementing the recommendations.

The Inaugural Function ended with a Vote of Thanks by Shri.K.R. Ganapathy, General Manager, IDRBT.

The Panel Discussion, which followed in the afternoon, was headed by Shri.S.P. Talwar, Deputy Governor, RBI. The other members on the panel

Shri. S.R. Mittal, Dr. V.P Gulati, Shri. S.P. Talwar, Dr. A. Vasudevan, Shri.S.S. Ghosh and Dr.R.H. Patil... during the panel discussion.

A view of the delegates during the inaugural session.

were: Dr. A. Vasudevan, Executive Director, RBI, Dr. R.H. Patil, Managing Director, National Stock Exchange, Mumbai, Shri S. S. Ghosh, Chairman & Managing Director, CMC Ltd., Shri Shashi Ullal, President & Managing Director, Hughes Escorts Communications Ltd., Shri S. R. Mittal, Chief General Manager, RBI, and Dr. V.P.Gulati, Director, IDRBT.

The discussions focussed attention on INFINET related issues, Payment Systems and Inter-bank and Intra-bank applications that can be used on the INFINET. The Panel members from NSE, CMC and HECL shared their experiences in technology upgradation and implementation issues. The group took a closer look at the issues involved in implementing the recommendations of the

Committee on Technology Upgradation and also underscored the need for technology planning for the future.

The Action Points that emerged from the Conference were:

1. Banks should prepare an I.T. Plan for the next 3-5 years and submit it to RBI and IDRBT at the earliest.

2. IBA may explore the ways of achieving a minimum level of standardisation of systems and interfaces across the Banks, at the earliest.

3. IBA may act as a motivator and facilitator for technology upgradation in member Banks.

4. INFINET CUG members will have the freedom to choose their own email and messaging solutions with proper interface with MS-Exchange, which is the messaging backbone on the Network.

5. The central gateway at the RBI end would be the IBM S/390 Mainframe system as far as National Clearing. Payment and Settlement Systems are concerned. Banks will have to keep this in mind while using or acquiring hardware and software systems and solutions for inter-bank transactions, so that they will have proper interfaces with the central gateway.

National Seminar on E-Commerce for Financial Sector
(December 18, 1999)

IDRBT was the venue for an impressive National Seminar on E-Commerce for Financial Sector. This one-day seminar was organised by CMC Ltd. and IDRBT in collaboration with the Ministry of Information Technology, Govt. of India. The seminar was attended by over 100 delegates who were from Banks and Financial Institutions, Academicians, I.T experts and Service Providers.

This seminar was organised as part of the project,

which is currently on - "Technologies for E-Commerce". This project, sponsored by the Dept. of Electronics, Govt. of India, New Delhi has been undertaken jointly by IDRBT and CMC Ltd.

The Seminar was inaugurated by His Excellency **Dr.C. Rangarajan**, Governor of Andhra Pradesh and former Governor of RBI.

In his Welcome Address, **Shri S.S. Ghosh, CMD of CMC Ltd., recalled the pioneering role played by Dr.Rangarajan in introducing computerisation in banks in our country.** The distinguished speakers from the national level will throw more light on the various issues involved in e-commerce, he said.

Dr.V.P. Gulati, in his introductory remarks drew the attention of the audience to the faster transition from brick and mortar market zones to borderless virtual markets. All of us should work towards evolving open standards for universal reach and connectivity, scalability to grow with the global business volumes, reliability and security, he said and **emphasised that the primary purpose of the seminar was dissemination of knowledge in this area.**

Dr.A.K. Chakravarthi, Advisor and Head of I.T and Telecommunications, Ministry of Information Technology, spoke on the Govt. of India initiatives on e-commerce. **He said that India has turned out to be a major destination for offshore services and we can tap a significant share of the global e-commerce market.** Outlining the initiatives taken so far, he said that the telecom group on IT enabled services was likely to submit its plan of action by the month-end. To extend the reach of Internet, 188 licences have so far been given to ISPs in the private sector, he mentioned.

In his Inaugural Address, Dr. Rangarajan lauded IDRBT for the commendable progress it has achieved, within a span of three years, in the promotion of I.T. solutions for the efficient functioning of the financial sector. Elaborating on the emerging trends in e-commerce, he said internet banking was driven by four inter-linked factors, namely, accelerated customer demand, increased competition, bankers' relentless drive for improving efficiency with cost reduction and the worldwide regulation of the financial market. He hoped that the Government would chip in with amendments to different acts such as the Negotiable Instruments Act, RBI Act and the Bankers Books Evidence Act. Among the recent Government initiatives, the I.T. Bill 1999 is a comprehensive step that will provide a cyber law framework for e-commerce to develop and

His Excellency, Dr. C. Rangarajan, Governor of Andhra Pradesh, inaugurating the National Seminar.

flourish, he said. **He emphasised the need for a sound, secure, reliable, efficient and technology oriented financial system to support the development of e-commerce.**

The inaugural function ended with a vote of thanks by Dr.P. Dasgupta, ED, CMC Ltd.

The Seminar had three sessions. **Session I** was chaired by **Prof. D.B. Phatak**, from IIT, Mumbai. and the topics presented were:

Communication Infrastructure: Plan and preparedness for e-commerce.

– Shri. Amitab Kumar
Director (Operations), VSNL

Web Hosting Services for E-Commerce: Options and Opportunities.

- Shri. J. Avinash
Head, Web Hosting Services, Satyam Infoway

E-Commerce: Opportunities & Challenges, General Issues, Technology / Financial Sector.

- Shri N.N.Murthy
Senior Project Manager, CMC Ltd

INFINET Payment Systems Infrastructure for the Banks.

- Shri. K.R. Ganapathy
Advisor, IDRBT

E-Commerce Application: Issues & Experiences in Stock Exchange Sector.

- Ms. Deena Mehta
Vice President, Bombay Stock Exchange

Session 2 was chaired by **Dr.S. Ramani,** Director, National Centre for Software Technology, Mumbai. The Presentations were:

Approach to E-Commerce by Mutual Funds
- Shri A.K.Thakur
Executive Director (Operations & Systems), UTI

Approach to E-Commerce by Banks.

- Shri K.Seshasayee
Chief General Manager, SBI

Approach to E-Commerce by Insurance Sector.

- Shri S. Krishnan
Manager-EDP, LIC of India, Mumbai

Session 3 was a Panel Discussion headed by **Shri.S.R. Mittal,** Chief General Manager, RBI. Other members on the panel were:

Dr.P.G. Sarang, I.T. Consultant,Shri J. Satyanarayana, IAS, Secretary, Ministry of IT, Govt. of Andhra Pradesh and Dr. Krishnaprasad, Addl. General Manager, CMC Ltd and Dr.A. Saxena, Faculty IDRBT.

A view of the fully packed auditorium ... during the inaugural session of the National Seminar.

Dr. Sarang made a brief presentation on Java and **Shri. J. Satyanarayana** shared with the audience the success stories and massive re-orientation efforts in IT implementation in A.P Govt.

There was a lot of useful interaction with each speaker immediately after his or her speech, in all the three sessions. **The distinguished moderators made the sessions lively, memorable and highly rewarding by bringing their individual excellence and technical expertise to bear on the entire proceedings.**

The National Seminar concluded on a positive note when Shri.S.R. Mittal echoed the feelings of all the delegates, by saying **"We Indians are second to none in the world as far as I.T implementation is concerned** and very shortly, we will see the financial sector handling e-commerce, RTGS and a whole lot of anywhere banking facilities, with utmost ease and optimal security and reliability".

By all accounts this was a wonderful event, highly appreciated by all the delegates for the way it was organised, the impact it created and the sense of enrichment and fulfilment it provided at the end of the day.

IDRBT wishes to place on record its sincere thanks to CMC Ltd., the Ministry of IT, New Delhi, Reserve Bank of India, the distinguished speakers, special invitees and all the delegates and their sponsors for their contribution and cooperation in making this seminar a grand success.

Other Seminars and Events

NetCom'99

IDRBT joined hands with the Management Development Institute **(MDI)**, Gurgaon and the India Council of the Institute of Electrical and Electronics Engineers Inc.**(IEEE)** to organise an **International Seminar on E-Commerce Opportunities and Challenges in India**, on October 29, 1999 at Hotel Le Meridien, New Delhi.

This one-day seminar sought to highlight the managerial, organizational and infrastructural issues for enabling secure e-commerce. The delegates were: from Banks and Financial Institutions, Manufacturing and Distribution Enterprises, Internet Service Providers, experts from I.T and Telecommunications, Management Consultants and academicians from Engineering and Management Institutes.

Shri. P.V. Jayakrishnan, Secretary, Ministry of Information Technology, Government of India, delivered the Inaugural Address. The eminent speakers at the seminar were: Prof. Dennis Longley from QUT, Australia, Prof. Devi Singh, Director, MDI, Dr.V.P. Gulati, Director, IDRBT, Prof.M.P. Jaiswal and Prof. K.B.C. Saxena from MDI. Prominent leaders from the I.T. industry were also on the panel and made presentations on key issues in the emerging e-commerce scenario.

Prof. Longley's Visit

Prof. Dennis Longley is the former Head of the Information Security Research Centre at Queensland University, Brisbane, Australia. He is one of the leading researchers and consultants in e-commerce and security. He has authored many books on Information Security. He was here on a short visit to IDRBT. During his visit, he addressed the participants of the programme on Payment Systems and Security Technology. He also held wide-ranging discussions with the Director and Faculty of IDRBT. **During the discussions, the possibility of QUT and IDRBT working in collaboration was voiced and explored.** Plans are afoot to make formal

arrangements for exchange of faculty, research teams and knowledge on a regular basis between these two institutions.

Intel inside IDRBT

A team of professionals working on Security in Intel Corporation visited IDRBT on October 27, 1999. The team led by Mr. Lee J.Hirsch, Director, Strategic Marketing from California included Security Architects Mr.David Aucsmith and Mr.Anand Rajan from Oregon and two marketing executives from Hong Kong. They made a presentation on Security Technologies on the Intel Architecture Platforms, which was followed by a discussion on the developments that are taking place in this field in various parts of the world. We could see a lot of common ground during the discussions. The interaction - exchange of views and points of technicality and perceptions on developments in security technology - was very much beneficial and reinforcing for both IDRBT and Intel.

CMC Ltd. on APSWAN

On 29th November 1999 CMC Ltd made a presentation on the Network Architecture and Design for the Andhra Pradesh State Wide Area Network (APSWAN), which has provided direct connectivity to all the districts in the state with the State Secretariat and the Chief Minister's office. The role played by the CMC Ltd., and the roadmap for the future in this project were also described. This seminar provided the opportunity to discuss the various options available for effective networking for the financial sector and the nitty-gritty involved.

IIB and IDRBT Get Closer

On December 28, 1999, Shri.R.H.Sarma, the CEO of Indian Institute of Bankers, Mumbai, visited IDRBT. He was accompanied by Shri.P. Balachandran, Director , IIB. **The primary purpose of the visit was to explore ways of closer cooperation between IIB and IDRBT to achieve the common goal of improving the academic excellence, awareness standards, operational efficiency and technological competence of Bankers in our country.** During the course of the discussions, the need for and possibility of preparing a comprehensive Technology Based Training Module for Top Executives in Banks came up. It was decided that this could be looked into with utmost seriousness and urgency. Later on, the guests were taken around the IDRBT campus to familiarise them with the facilities, activities and on-going projects of the Institute.

Managing Borders with Novell

A team from Novell made a presentation on December 14,1999 on Border Manager Enterprise Edition (BMEE). They spoke at length on their efforts to create a value added bundle, which resulted in BMEE which comprises a firewall, authentication, VPN management services, caching services for comprehensive security along with Novell Directory Services (NDS) and single sign-on facility.

INFINET News

- Out of the 450 VSATs proposed to be installed, 379 have already been commissioned as of now (30/01/2000).

- Most of the banks have already started using the network for FTP.

- Messaging backbone has been implemented on INFINET and various banks are using it by configuring thin clients to access our Mail Servers at the hub.

- Department of Telecom has approved the leased line network, which will be seamlessly integrated with INFINET.

- The Report of the Sub-group on Message Formats has been accepted by RBI. A copy of the report has been circulated to all the CUG members.

- Individual MoUs between IDRBT and the CUG members on INFINET Service are being signed.

- The committee on Structured Messaging has invited technical proposals for a suitable Messaging Solution from reputed vendors. A few proposals have been received and they are being processed.

- Individual banks can plan for deriving the maximum advantage through devising applications of their own by creating a Virtual Private Network (VPN) for them on the INFINET.

Training Programmes on VSAT and Communication

LEVEL 1

Between September and December 1999, four more programmes were conducted for VSAT Users (Level 1). With this the number of training programmes

conducted so far, under this category, has gone up to 22, covering around 660 participants drawn from the Banking Sector. These programmes are aimed at providing the necessary inputs to the officers of banks for operating and managing the remote VSAT sites and guidelines for basic troubleshooting. The programme content and design have been suitably modified to cater to the needs of a heterogeneous group of participants.

Research and Development

Multimedia

An information kiosk with a touch screen monitor has been installed in the Reception Lounge of the Institute. The user can use his finger to navigate through the web pages to view the contents (information made available literally at finger tips). This kiosk provides a lot of useful information to the visitors about the Institute, its facilities, projects, programmes and other activities. It will also provide a lot of audiovisual material on conferences, seminars and other important events conducted or sponsored by IDRBT.

His Excellency, Dr.C. Rangarajan keenly observing the features of the Kiosk being demonstrated by Shri. M.V. Sivakumaran, Faculty, IDRBT. Prof.D.B. Phatak, IIT, Mumbai and Shri.K.R. Ganapathy, Advisor, IDRBT are also seen.

Payments System and Security

Intrusion Detection System : The Institute is developing a prototype of a Network based Intrusion Detection System (NIDS). This System will be able to detect the following types of attacks on the Network:

- Land attack
- TCP Syn attack
- TCP Port Scanning

- UDP Port Scanning
- UDP Flooding
- Ping of Death
- Smurf attack

The tools for detecting each of these attacks are being developed and tested. We would be deploying this NIDS on our network for testing at various stages. This project is expected to be completed by May 2000.

Data Warehousing and Data Mining

Data Mining for Analysing Credit Card Transactions: The first project that we undertook in this area was successfully completed. The limited data we got for this purpose, from a public sector bank, was quite useful for our research. We could use pre-processing techniques, scrubbing and cleaning, clustering and classification. We could analyse the data using Pattern Recognition Workbench system. The results obtained gave us a deep insight into the spending patterns of the cardholders.

We are now getting into the second project in Data Mining **- Pattern Discovery and Data Mining in Retail Banking** with a view to finding out a suitable Data Mining approach for large-scale decision support systems for Retail Banking needs.

Inventory and Analysis of Banking Software Products

We have provided a comprehensive Inventory of Banking Software Products available as of now in our website at **http://www.idrbt.com.** The information provided is classified into needs of banks at various operational levels and the software products that are presently available to meet those requirements. Whatever information we could gather from the bankers and the vendors has been scrutinized and presented.

IDRBT has not made any evaluation of its own of any of the products listed in the inventory for want of complete information about them and evaluation copies thereof. Therefore, the vendors and their products listed on our website do not carry any certificate or recommendation or guarantee from IDRBT regarding their quality and/or performance.

Banks and Financial Institutions are advised to be guided by their own procedures for evaluation and selection in dealing with the vendors and their products listed in the inventory.

Inputs or queries in this regard can be sent to Shri.V.Visweswar, Faculty.
(email:viswar@idrbt.ernet.in)

Executive Development Programmes

Data Mining in the Banking Industry (October 4-9, 1999)

This programme was organised with the aim of promoting technical and operational awareness for implementing Data Warehousing and Data Mining technologies in the banking industry. Prof. V. Rama Rao, Vice-Chancellor, University of Hyderabad and Dr.R.B. Barman, RBI delivered keynote addresses in the inaugural session. There were 28 participants, including AGMs, DGMs and GMs from banks. A good number of experts in the field of DW and DM were invited to address the participants, apart from our own faculty.

Prof. V. Rama Rao, Vice-Chancellor, University of Hyderabad, delivering the Inaugural Address...
Seated to his left are : Dr. S. Sudarshan, IIT, Mumbai, Dr. R.B. Barman, Dr. V.P. Gulati, Prof. A.K. Pujari, UoH and Dr. A.K. Nag from RBI.

The major thrust was on imparting technical know-how in a practical manner. At the end of the programme, the participants made presentations on this subject like: Organisational Issues and Policies in DW and DM, Bank Strategy, New Areas for Advancement etc.

Payment Systems and Secure Technology (October 25 - November 3, 1999)

Dr.A.Vasudevan, Executive Director, RBI inaugurated the Programme. There were 18 participants; most of them AGMs and DGMs from Banks and there was one from the Central Bank of Sri Lanka. As many as

Dr. A.Vasudevan, (centre) clarifying a point during the inaugural session.. He is flanked by Dr.V.P. Gulati and Shri. R.S. Bakkannavar, Regional Director, AP, RBI and Shri.S.R.Mittal, CGM, RBI, Central Office and Dr.A.Saxena, Programme Coordinator.

13 eminent speakers and professionals were drawn from various parts of the country and from abroad apart from our own faculty, to address the participants on the issues involved. Notable among them was Prof. Dennis Longley, who came all the way from Queensland University, Australia. (Read more about him on page 4 in this issue.)

The topics covered were: Evaluation of Payment Systems, Banking Technology, RTGS and Cross Border Payments, Electronic Payment Systems, Smart Cards, Digital Signatures and Certification, Risk Management in Payment Systems, Legal and Regulatory Framework for Electronic Payments etc. At the end of the programme the participants made presentations on Adverse Effects of Security on Customers of Internet Banking, Financial Networking, Money in the Third Millennium and Electronic Funds Transfer.

Forthcoming Programmes

Special Programme for Bank of Maharashtra

Bank of Maharashtra had requested IDRBT to conduct a Special Executive Development Programme on Emerging Trends in Technology for their top executives. We are planning to conduct this one-week programme for two batches in February 2000.

Training Programmes on Messaging Systems

MS Exchange

At the request of a few Banks, which have selected MS Exchange as their messaging solution, we have

planned to conduct four training programmes on MS Exchange, in January - February 2000.

The Banks which have opted for this programme are: Allahabad Bank, Andhra Bank, Bank of Baroda, Oriental Bank of Commerce, Vijaya Bank and Reserve Bank of India.

IDRBT is willing to conduct similar programmes for other Banks on MS Exchange, Lotus Notes and Novell Groupwise to meet their specific needs and to help them take-off faster in the messaging environment.

Further queries in this regard may be addressed to Ms. V. Radha, Faculty.
(e-mail: Radha@idrbt.ernet.in)

Facilities at the Institute

The New Computer Lab

A partial view of the New Lab

IDRBT has set up a new and spacious Computer Lab for providing hands - on training during Executive Development Programmes. The new lab has been carefully designed in such a way that the faculty can move freely along the aisles and rows to pay personal attention to each participant, when required. The new lab has a higher capacity of 40 computer systems when compared to the 24 systems we had in the old lab.

The Personnel Desk

Faculty

Dr. V.N. Sastry has joined IDRBT in November 1999.

Prior to this he was a Senior Lecturer for almost 7 years at the Department of Mathematics and Computer Applications at Regional Engineering College, Tiruchirappalli, Tamilnadu. He has obtained his M.Sc. and Ph.D. degrees from the Indian Institute of Technology, Kharagpur in 1987 and 1994 respectively. He has visited and delivered lectures, on invitation, at several Institutions in India, USA (1998, 1990) and Canada (1998). He is currently working on Payment Systems, System Optimisation and Fuzzy Control.

Join IDRBT as a Faculty!

The Institute is on the lookout for high profile professionals from I.T and Banking, with academic and research inclination to work on some of the advanced areas such as:

1. Financial Network and Application Architecture.

2. Payment Systems and Security Management.

3. Multimedia.

4. Data Warehousing, Data Mining, Risk Management, Artificial Neural Networks etc.

Positions: We have openings for the posts of Faculty, Visiting Faculty and Faculty on Deputation to guide and undertake the development, research and training activities.

Profile: Candidates should have a Ph.D. in Computer Science or closely related area with a very good academic record and relevant experience. Outstanding candidates with Post Graduation in Computer Science and relevant experience will also be considered.

The Institute will also consider Professional Bankers with relevant experience and qualification for deputation to the Institute.

For more details visit our website:
http://www.idrbt.com

Interested candidates may forward their applications giving details about age, qualifications, experience, published papers/books etc., to the Director, IDRBT.

Institute for Development and Research in Banking Technology
(Established by Reserve Bank of India)

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