



Management System

powered by MicroMac Techno Valley Ltd.



Revolutionizing the way you manage your **bonds**, by leveraging the latest in web-based technologies



# BMS Management System



The Bond Management System (BMS) is a product of MicroMac Techno Valley Limited, a software firm specializing in providing superior software services to the financial community. BMS is a complete web based solution to manage all the schedule activities (from issuance to maturity) of Bangladesh Govt. Bonds including reporting and MIS.

System features include automatic generation of almost all transactions. It covers Customer Database, Stock, Sales, Interest, Encashment, Commission, Paritoshik, Lien, Sundry Account, Suspense Account etc. and performs operations like printing certificates, reinvesting bonds, reports for Interest/Coupon, Encashment etc. BMS generates statements regarding sales, interest payment, encashment, commission claim, paritoshik claim etc. in compliance with the Bangladesh Bank. It also generates different MISs for internal use. Historical reports can be printed for any time-period requested. The entire system is menu-driven and provides full online inquiry to the bonds database.

General Ledger transactions can be generated from each transaction posted to

the system. This reduces the amount of data entry and eliminates any input mistakes. A general ledger file or table is used to cross reference the type of transaction with the appropriate debit and credit accounts.

## highlights

- Developed in a State of art Technology, a 3-tier web based architecture.
- Support multiple branches/stocks.
- Support unlimited Users.
- Full blown password & operator permission for each screen & each function within the screen.
- Integrate the entire application with "Online approval" to enable "Paperless Office"
- Ability to export reports to MS Word/MS excel/PDF.
- Fully parameterized the key fields to be customized by the user on their needs.
- Fully integrated but yet modular, which helps to enhance and maintain the application in the long run.
- Extensive reporting options.
- All fields are completely user-friendly with Browse or Select option as much as possible.
- Extensive user and administrator training will be provided.
- Audit trail and alert option will be provided.



## benefits

- Gain customer satisfaction through quick service
- 100% formatted Bangladesh Bank reporting
- Payment forecasting for future cash outflow
- Save man-hour
- Save operation cost
- Smooth management of Sundry and Suspense A/C
- Hassle free auto interest and tax calculation
- False/fake transaction detection
- Standardizes data access
- Maintenance of secured data transaction
- Role and right based users' access to the system
- Increases visibility and transparency



# Clients





## BMS Managed Bonds

BMS has the option of defining all the existing Local Currency and Foreign Currency (LCY and FCY) bonds prevailing in the market, such as:

- 5 Years Interval Profit withdrawal Sanchayapatra (BSP)
- 3 Months Interval Profit withdrawal Sanchayapatra (SP)
- Pensioner Sanchayapatra (PSP)
- Family Sanchayapatra (FSP)
- Wage Earner Development Bond (WEDB)
- US Dollar Investment Bond (DIB)
- US Dollar Premier Bond (DPB)

BMS also has the ability to modify the product features in accordance with changes of different bond schemes by the government time to time.

## Sample Reports

Stock Balance (Status) as on 21/05/2011

Sl No	Description	From	To	Stock	Amount (Tk)
1	5 Years Interval Profit withdrawal Sanchayapatra (BSP)	10/08/2008	10/08/2011	100	5,000.00
2	3 Months Interval Profit withdrawal Sanchayapatra (SP)	10/08/2008	10/08/2011	100	1,500.00
3	Pensioner Sanchayapatra (PSP)	10/08/2008	10/08/2011	100	1,500.00
4	Family Sanchayapatra (FSP)	10/08/2008	10/08/2011	100	1,500.00
5	Wage Earner Development Bond (WEDB)	10/08/2008	10/08/2011	100	1,500.00
6	US Dollar Investment Bond (DIB)	10/08/2008	10/08/2011	100	1,500.00
7	US Dollar Premier Bond (DPB)	10/08/2008	10/08/2011	100	1,500.00
<b>Total:</b>					<b>10,500.00</b>

The City Bank Ltd. | Bond Management System

Department of Service Delivery (SD)

Encashment Due Payments on 21/05/2011

Date	Particulars	Dr	Cr	Balance
15/05/2011	Pre-Budget Reg. 2011(1) 1000	100,000.00		100,000.00
15/05/2011	Advance payment from 9th April Reg. 2011(1) 1000, 10th April Reg. 2011(1) 1000		100,000.00	200,000.00
15/05/2011	10th April Reg. 2011(1) 1000	100,000.00		100,000.00
21/05/2011	Pre-Budget Reg. 2011(1) 1000		100,000.00	200,000.00
<b>Total Debit: 310,350.00</b>				<b>Opening Balance: 0.00</b>
<b>Total Credit: 100,000.00</b>				<b>Available Balance: 210,350.00</b>

OUT STANDING COMMISSION REPORT

Currency: BDT | Update Date: 21/05/2011

SL	Type	Amount	Details
1	3 Months Interval Based Sanchayapatra	150,000.00	Details
2	5 Years Sanchayapatra	41,425.00	Details
3	Family Sanchayapatra	83,850.00	Details
4	Pensioners Savings Certificate	21,000.00	Details
<b>Total:</b>		<b>364,775.00</b>	

Eastern Bank Limited | Bond Management System

Department of Service Delivery (SD)

Encashment Due Payments on 21/05/2011

SL	Type	Reg. no.	Issue Date	Script Qty.	Maturity Date	Total Face Value
1	BSP	BSP2008/0098	08/08/2008	2	08/08/2011	10,000.00
2	BSP	BSP2008/0100	20/08/2008	1	20/08/2011	5,000.00
3	BSP	BSP2008/0101	20/08/2008	1	20/08/2011	5,000.00
4	BSP	BSP2008/0102	21/08/2008	1	21/08/2011	5,000.00
5	BSP	BSP2008/0073	02/08/2008	1	02/08/2011	1,000.00
6	BSP	BSP2008/0078	08/08/2008	3	08/08/2011	30,000.00
7	BSP	BSP2008/0078	08/08/2008	1	08/08/2011	10,000.00
8	BSP	BSP2008/0077	10/08/2008	2	10/08/2011	20,000.00
9	BSP	BSP2008/0078	14/08/2008	2	14/08/2011	20,000.00
10	BSP	BSP2008/0079	15/08/2008	4	15/08/2011	40,000.00
11	BSP	BSP2008/0080	17/08/2008	3	17/08/2011	30,000.00
12	BSP	BSP2008/0081	18/08/2008	2	18/08/2011	20,000.00
13	BSP	BSP2008/0082	18/08/2008	1	18/08/2011	5,000.00
14	BSP	BSP2008/0083	21/08/2008	6	21/08/2011	60,000.00
15	BSP	BSP2008/0084	21/08/2008	2	21/08/2011	20,000.00
16	PSC	PSC2008/0018	13/08/2008	3	13/08/2011	15,000.00
<b>Total:</b>						<b>58,200.00</b>

## Interest Payment Form Screenshot

INTEREST PAYMENT

Registration Number: BMS2008/0096  
 Customer Type: Single, Operate By: Any One  
 Customer Name: ARSHI HAIDER  
 TIN/GA: 033068-070(3) Interest Rate: 11.5000

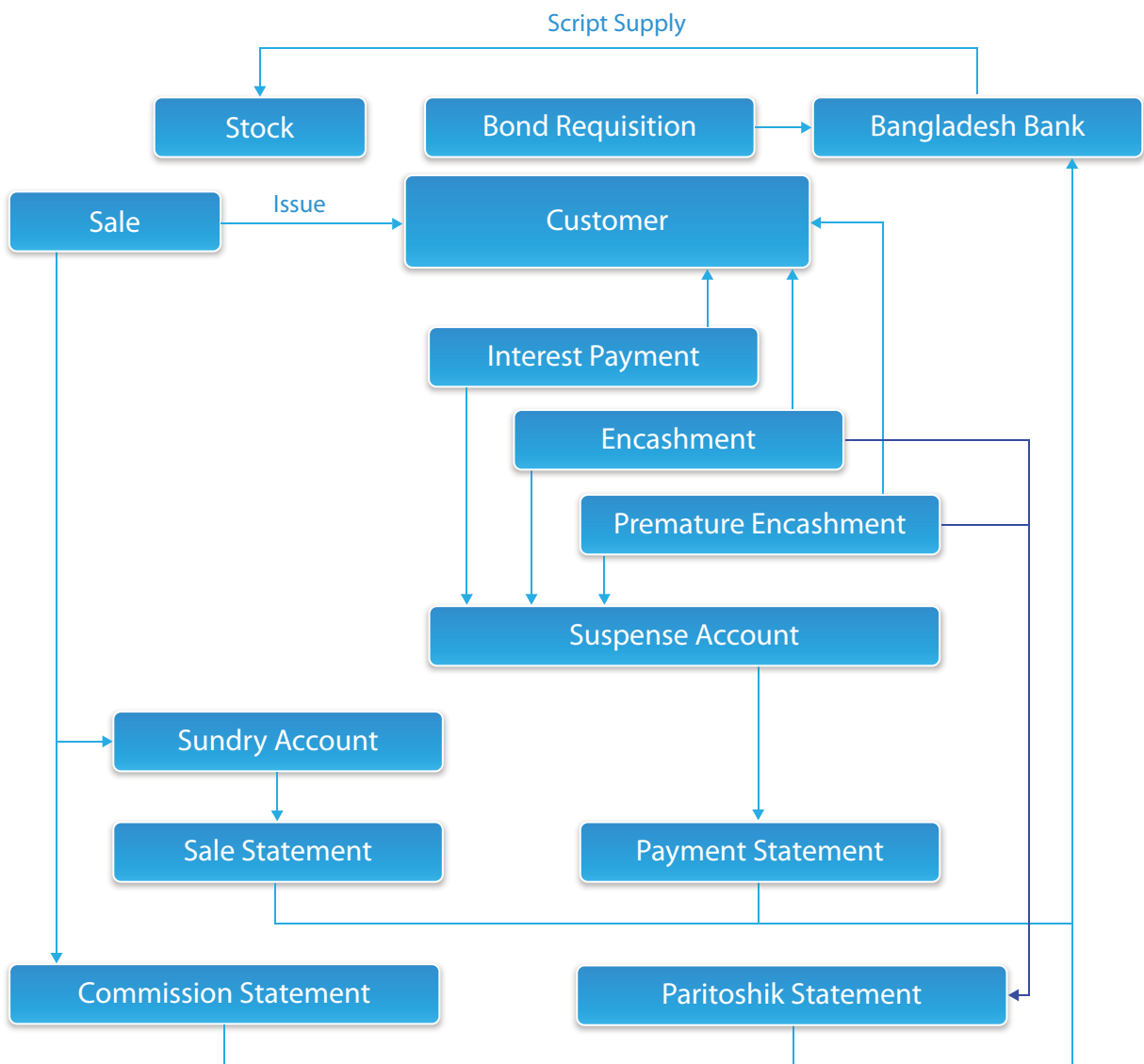
Script Numbers:  Tax Applicable  Coupon  To  select  Select All Mature Token:

SL	Bond No.	1	2	3	4	5	6	7	8	9	10	11	12
1	TIN GA 0336068 F.V.: 500000.00 Coupon: 14375.00	05/08/08	05/11/08	05/02/09	05/05/09	05/08/09	05/11/09	05/02/10	05/05/10	05/08/10	05/11/10	05/02/11	05/05/11
2	TIN GA 0336069 F.V.: 500000.00 Coupon: 14375.00	11/03/09	11/03/09	23/02/09	26/03/09	28/03/09	28/03/09	28/03/09	28/03/09	28/03/09	28/03/09	28/03/09	28/03/09
3	TIN GA 0336070 F.V.: 500000.00 Coupon: 14375.00	05/08/08	05/11/08	05/02/09	05/05/09	05/08/09	05/11/09	05/02/10	05/05/10	05/08/10	05/11/10	05/02/11	05/05/11

Total Interest: 0.00 | Int. Rate: 11.5000 | Payment:  AC Transfer  Cash  Cheque  
 Total Tax: 0.00 | Tax Rate: 10.00 | AC No.: 1041510013763 | Paid Date: 21/05/2011  
 Net Payment: 0.00 | Tax Applicable: Yes | Currency: BDT | Exchange Rate: 1

Save

# Functional Diagram



# Technology, Hardware & Software Requirements



## Technological Requirements

**User Interface:** Internet Explorer (IE) 7.x or higher

**User Operating System:** Windows XP, Windows Vista, Windows 7

**Server Operating System:** Linux

**Web Server:** Apache

**Application Layer:** PHP

**Database Server:** MySQL

## Hardware Requirements

Web Server and Database Server

The following requirements are applicable for BMS installation on a single server with built-in database.

**Processor:** Quad Core Intel Xeon Processor 2.53 GHz or Higher

**RAM:** 4 GB (minimum) 8 GB (Recommended)

**Hard disk:** 160 GB (minimum) 250 GB (Recommended)

For production use, you may need additional free disk space for day-to-day operations.

## Software Requirements

BMS requires a web server environment and will run in Apache easily. BMS should run in any server environment that supports PHP.

BMS will use MySQL as a database.

**Operating System:** Linux

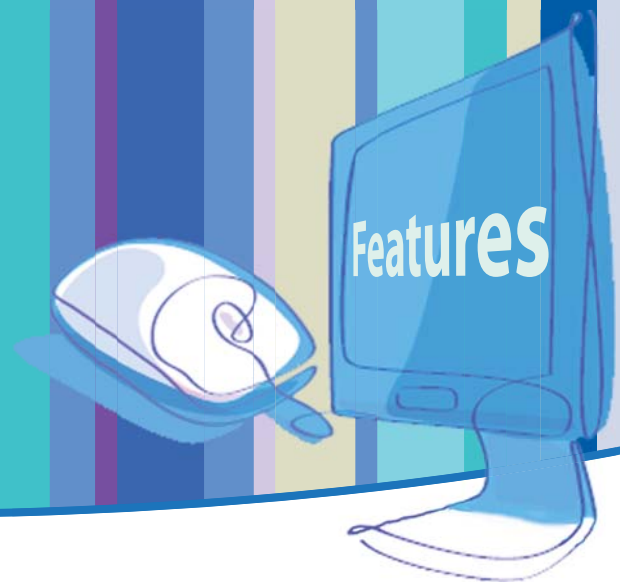
**Web Server:** Apache 2.2.11 (Unix)

**PHP:** PHP 5.2.6 or 5.2.8

**Database Server:** MySQL 5.1.30

For production use, you may need additional free disk space for day-to-day operations.





**Stock Maintenance:** BMS allows you to easily manage stock quantities, set low-level alerts, generate and send requisition of bonds to Bangladesh Bank, and more.

**Flexible Interest Rate Maintenance:** Government changes rate of interest time to time. BMS has the flexibility to maintain interest rates of the products with history to properly calculate interest of the bonds issued during the tenor slab.

**Customer Information:** BMS has the competence to assign each customer a unique Customer Id that contains detailed required information of the customer.

**Sale/Issuance of Bonds:** BMS has the feature to issue or sale all types of Sanchayapatra including foreign currency bonds (WEDB, DIB and DPB). Issuance record contains product information and customer information. After issuing particular information, system generates payment schedule.

**Reinvestment:** BMS has the facility of reinvestment of bonds for the same period supported by the product feature.

**Interest/Coupon Payment:** BMS keeps the records of payment of interest/coupon payment history during the period of the bonds based on the pre-generated interest payment schedule and give message for any early payment. It also adjusts the paid interest for the early encashment of Bond.

**Commission Realization:** BMS is able to calculate commission to be claimed from Bangladesh Bank as per product feature.

**Paritoshik Realization:** BMS is able to calculate paritoshik to be claimed from Bangladesh Bank as per product feature.

**Transaction Processing:** Actual accounting entries will be inputted to the core software. The software has options to generate handoff files of entries that can be uploaded in the core system.

**Reconciliation with Bangladesh Bank Account:** BMS is able to track Bangladesh Bank's entries for sales and reimbursement of encashment/coupon payment. That is, it can manage (debit/credit/reconcile) the sundry and suspense account.

**Reporting to Bangladesh Bank:** BMS has the option of keeping all the reports of sales, interest payment, encashment, commission and paritoshik claims to Bangladesh Bank. It has also the facility to generate different MIS for the management.

**Query:** BMS has flexible query option on Customer information & their Bonds holdings, sales, encashment, interest due, Bonds details etc.

**Lien Marking/Status Changing:** Lien is a legal claim or a "hold" on some type of property, whether personal or real property, making it collateral against monies or services owed to another person or entity. BMS also has the option of Lien marking and changing status as Block/Lost.

**Certificate:** BMS has the option to generate various certificates, such as TAX Certificate, Bond Purchase Certificate, Encashment Certificate, Interest Payment Certificate etc.

**Report for Interest / Coupon Encashment (Standing Instruction):** BMS has the facility of Bond custodianship where customer will provide instructions to the bank to liquidate periodic interest as per standing instruction. System will generate report of such instruction on due date.

**User Maintenance:** BMS has the option to create different types of users by assigning different rights. Only System Admin will be able to create users and total access control.

**Audit Trail:** BMS is also capable to maintain audit trails for insightful activities by the users as functions set by the system administrator.

**Parameters for Sanchayapatra:** BMS is capable to adapt future changes.

**Data Migration/Entry:** Worried about importing your legacy data? We can migrate your old data to work with BMS. There is also option to entry legacy data for the banks who maintain paper register.



# FAQ

## (Frequently Asked Questions)

### **What is the data storage capacity of BMS?**

By Default BMS comes with MySQL and data storage capacity is 4 TB (Terabytes). But MS SQL Server / Oracle can also be used with BMS where capacity depends on size of storage.

### **Can BMS be operated in multiple stocks or branches?**

Yes.

### **Can BMS handle bonds in local and foreign currencies?**

BMS is capable of managing all types of Sanchayapatra in local currencies and all types of bonds in foreign currencies prevailing in the market. It is also capable to create new product.

### **Can script be printed in BMS?**

Yes.

### **Is BMS capable to lien script?**

Yes.

### **Is BMS capable to issue duplicate script?**

Yes, BMS is capable of issuing duplicate script lost by customer even if with different denomination scripts other than the face value of the original script.

### **Is BMS capable of receiving scripts (different types and denominations) from Bangladesh Bank other than its requisition?**

Yes.

### **In case of reinvestment of bonds, is BMS capable of reinvesting partial amount of face value?**

Yes.

### **In case of WEDB, is there option for selecting script-wise nominee in BMS?**

Yes.

### **Is there any option for setting standing instruction or auto coupon payment in BMS?**

Yes.

### **Can BMS issue all types of certificates?**

Yes, BMS can issue all types of certificates, such as Issue, Interest, Encashment, Tax etc.

### **Is BMS capable to adopt the changes circulated by Bangladesh Bank from time to time?**

Yes.

### **Is BMS capable of generating all types of Bangladesh Bank statements and reports?**

Yes, and addition to this BMS is also capable of generating extensive MIS reports.

### **Is BMS capable of transaction processing?**

Yes, BMS is capable of generating handsome excel or text files to upload into the core system.

### **Is there any option for data migration in BMS?**

Yes, BMS is capable of transferring data from existing system.

# Other Banking Modules

## eDoc

### Security Document Management System

From time unknown, banks had spent many valuable professional times in easy retrieval and locating documents for its internal operations and in rendering client services. Difficulties encountered by both, bank and its clients. eDoc: Security Document Management system, a web based application developed by MicroMac Techno Valley Ltd, has the features to store and manage security documents of all loans in one central repository that is accessible and can be shared by all pertinent employees of the bank in a rapid manner. eDoc automates loan documents in an easy, time saving, hassle free and accurate manner. The system is also cost effective as it saves working hours, and other costs. eDoc covers the following:

- Customer Database
- Customer Credit (Actual & Inner Limit)
- Automated Documentation Check List
- Manage Security Document
- FDR/MBDR/BSP/PSP/WEDB/ICB
- Insurance Policy
- Post dated Cheque
- Document Archive
- Auto Warning System
- Extensive Reports (Customer Documentation, Document Inadequacies Report, Document Deferral Report, Cash Collateral Report, Insurance Expiry Report, Mortgage Report, Closed Account Report, Credit Report, FSV Report, User Log History, User Daily Activity Report and so on)

**flexible solutions for  
security documents**

## eDeal

### Treasury Management System

eDeal is a complete web based solution to manage all types of dealing of treasury department of commercial Bank. It covers the following:

- Foreign Exchange Deal
- Foreign Exchange Daily Work Sheet
- Dynamic Foreign Exchange Blotter (Corporate Blotter, TRD Blotter)
- Open Position Follow-up (Inter-Bank, Corporate, Import Settlement, Outward Remittance, TC Settlement, FDD Issuance, Bill Adjustment)
- Foreign Exchange Reports (Deal Slip, Deal Confirmation, Fund Transfer Instruction, Debit/Credit Voucher, Daily Inter-Bank Foreign Exchange Report, List of Inter-Bank SPOT Transaction, List of Cross Border Transaction, List of Inter-Bank Outright Forward Transaction, List of Outright Forward Transaction to Customer, Cheque)
- Money Market Deal (O/N Borrowing, O/N Lending, Term Borrowing, Term Lending, REPO, Reverse REPO)
- Dynamic Money Market Blotter
- SLR, CRR, Cumulative Position of CRR
- Money Market Daily Work Sheet
- Money Market Reports (Deal Slip, Money Receipt, Tax Deduction Certificate, Settlement of Call Money Transaction, REPO Letter, Reverse REPO Bid Tender Form, Cheque, Voucher (Borrowing, Lending, REPO, Reverse REPO, Provision, NRB, TT), Weekly Report, Provision Report, Money Market Operation)
- Branches Bill (FBR, FDR, IBP, IDBP, RFC)
- Fund Remittance, Fund Collection, Fund Transfer (MT200, MT202 Swift Message)
- NOSTRO Account
- Counter Party, Counter Party SSI
- Counter Party Limit Monitoring
- Currency Rate Monitoring
- Extensive Search Module

# About MicroMac



MicroMac Techno Valley Limited is one of the emergent software development stiff in Bangladesh. Initialing from 2004, MicroMac is providing its services to engineer and automate business organizations through providing automation software, website design and development and adding values to the expertise of professionals by professional trainings. We are specialized in providing superior software services to the financial community. We are also engaged in IT education and ICT Research.

Deploying business application requires more than just software. We offer a number of important services that help our customers to improve the way they work and manage information.

You can employ our software development services to create the exact software application your organization needs. We can design and build any kind of software to a defined specification using industry standard development languages. Our highly creative website development team design and build fresh, dynamic websites for organizations of all sizes.

The world is getting more complex and antagonized, getting smaller day by day, everyone is trying to find the easy way out to live. We help you to do that by giving you more cost efficient and more user friendly IT solutions to deal with your business by committing you to serve more conveniently.

#### **Our Services:**

- Software and Website Development
- Domain Registration and Hosting
- IT Education
- Data Entry and Conversion
- Antivirus Solutions
- IT Hardware and Accessories

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