

# MACROBANK FINANCIAL SOFTWARE TECHNOLOGY

## BROCHURE

### *MACROBANK – INNOVATIVE SOFTWARE PLATFORM FOR GLOBAL FINANCIAL INSTITUTIONS*

Macrobank technology is an innovative and reliable financial software platform designed to build bespoke solutions for banks, financial institutions and corporate treasuries. Macrobank-based products support a wide range of functionality in accounting, customer management, product definition and processing, compliance and reporting and in other essential aspects of banking and financial business. Our software solutions meet your needs of today and are capable of addressing the challenges far into the future.

Macrobank's power and flexibility provide banks and financial institutions with a unique opportunity to improve on their operating efficiency and document workflow. Advanced architecture makes it possible for our clientele to customise the system without relying on the software supplier and, thus, considerably reduce their maintenance costs.

Macrobank-based solutions also come in standart packages for customers with tight implementation timetables. Standard packages may contain any logical combination of available components to cater for the clients' specific needs without programming intervention.



## **Macrobank Benefits to Financial Institutions**

Macrobank5 end-users and their clients will benefit from:

- 1. In-built Customer Relationship Management Module**
- 2. Anti-money Laundering Module**
- 3. Enhanced Security in both Back-end and Internet Banking**
- 4. Advanced Workflow Automation Engine**
- 5. In-built General Ledger**
- 6. Customisable Report Generator**
- 7. Data Warehouse and Consolidated Reporting Module**
- 8. Multiple Languages Supported**
- 9. Multi-branch Capability**

Canopus Software Ltd. is continuously working to improve usability and existing functionality of Macrobank and add new advanced features to effectively tackle the problems of today and the near future.

## **Macrobank-based Solutions**

Canopus Software Ltd. offers a variety of standard software packages. What is a standard package about? It is a combination of modules built on Macrobank financial platform to match the business requirements of a particular type of financial institution. Years of experience in the automation of financial businesses guided us through the construction of specific solutions which only require some fine-tuning to be put into operation. Standard packages are chiefly intended for customers who wish their business to be up and running within just a couple of months.

Standard packages are aimed at saving our customers' time and money.

Macrobank is a unique software technology, offering unprecedented flexibility. Macrobank technology enables the creation of bespoke solutions to automate specific workflow of a financial institution and keeps the implementation period to a minimum.

### **Solutions for**

- Retail and Private Banking
- Electronic Payment Systems
- Online Bureaux de Change
- Remittance Automation
- Corporate Treasuries
- Lease and Loan Automation

## Macrobank Overview

When selecting a specialised application suite, global financial institutions irrespective of their size focus on system's flexibility, scalability and expandability to enable efficient operations of their branches across the globe from a single platform. A contract-winning solution should be parameter-driven to meet local regulatory and reporting requirements and customer-centric to retain existing customers and pull in more business at lower costs. Macrobank platform has this and many more useful features and functional capabilities.

Macrobank is an innovative and reliable software platform specifically designed and written to serve the needs of small-to-medium sized banks, corporate treasuries and other types of financial service providers. Specific solutions are made up of sub-systems and modules, which may be mixed in any logical combination and easily customised to meet precise requirements of a client. Macrobank is a robust, reliable and time-proven technology, which has been successfully used for years by financial institutions across the globe.

All Macrobank-based solutions are real time, multi-currency, multi-lingual and support multiple delivery channels (multiple branches, internet banking, SMS banking). Macrobank's core banking solution manages both front and back-office of the financial institution and interacts with Internet banking.

The core system is made up of 3 sub-systems: multi-currency accounting, workflow engine and system administration. The accounting sub-system comprises a user defined chart of accounts, general ledger, budgeting, customer records, correspondent banking and reconciliation facilities, charges and commissions (integrated with workflow engine), transactions and reporting modules.

Workflow engine provides unmatched flexibility and efficiency in setting up most complex transaction processing rules and product life cycles. Macrobank's workflow engine is a powerful and easy to use tool for the management and control of the entire workflow in a financial institution. It is an invaluable facility for modifying current and introducing new, innovative products, which enables the user to quickly respond to ever changing market situation.

A broad array of functionality is available to meet diverse business requirements of various types of financial institution. The processing of transactions concerned with deposit-taking, lending, mortgage loans, foreign exchange, cheques and leases are fully supported. Packages may come complete with card management module, SMS banking, Internet banking, web-based customer relationship management and anti-money laundering modules. These can fully and seamlessly be integrated into the core system, which is an indispensable component in every case.

Internet banking is a highly secure web-based customer account management system, which enables the bank's clients to be in full control of their finances round the clock anywhere in the world, providing there is Internet connection. Internet banking is an easy-to-use and convenient facility for the bank customer to view their account information (account balances, statements, transactions history), send payment, inter-account transfer and currency exchange instructions, set up standing orders and apply for loans and payment cards online across the internet. Internet banking may be complemented by E-currency module interfaced with the most popular e-cash providers (E-gold, Gold Money, E-bullion, Pecunix, Web Money)

Information security has always been one of our chief priorities. Extensive multi-level security system is used to protect confidential data. From the security perspective, there are 3 major aspects to be addressed - database security, data transmission security and application security. To protect the database against unauthorised access, network and server operating systems are used in addition to appropriate network configuration. Data transmitted between the institution's web server and the client is protected by internet browser, supporting SSL with encryption key length of 128 bits. DSA digital certificates or

customer verification codes (security codes) enable the proper authentication of internet banking users. Application security features secure login enhanced with virtual keyboard facility to counter key loggers and spyware, audit trail, role-based access rights and authority levels among others.

The system's functionality is described in greater detail in the "Modules" section of the website

## **Macrobank Functionality**

### **Functionality**

Macrobank range of software products provides the automation necessary to improve operating efficiency and streamline workflow, transaction processing, reporting and compliance in various types of financial institution and other finance-related entities. Each of our standard solutions contains functionality designed to successfully serve the specific needs of your business and your customers. For more details on specific solutions, please see the Solutions section of the website.

Macrobank brings advanced technologies to your business and makes these work for you. Macrobank-based solutions offer increased performance and save your time and money. Our team of programmers works hard to enhance the existing functionality and perfect the usability of the proposed solutions so that the user enjoys the best technology available.

### **Key features and functional capabilities**

- Real time operation
- Extensive use of straight-through-processing (STP) technology
- Web-enabled CRM
- Multiple delivery channels
- Multi-currency GL with multi-entity capability
- User definable chart of accounts
- Fixed asset register
- Multiple sets of currency exchange rates
- Correspondent banking facility
- Account reconciliation facility
- Full range of workflow processing capabilities
- Scheduling facility
- Charges and commissions management
- Data warehouse capabilities
- Production of consolidated reports
- Extraction of balances in appropriate currency
- Powerful custom report generator (statistical, analytical reporting)
- Various enquiry and information retrieval capabilities
- Easy interfacing with external systems
- Data import/export capabilities
- Full range of compliance functionality (KYC, identification of suspicious activity, etc.)
- Account and customer classification facility
- General purpose forecasting and planning facility
- Multilingual user interface (Back office & internet banking)
- In-built secure email messaging system
- Sophisticated search facility

## **Macrobank Subsystems and Modules**

### **Multi-currency Accounting**

Multi-currency accounting is the core component of Macrobank financial software platform. It comprises user definable chart of accounts, in-built fully functional multi-currency general ledger, account management module and account classification facility.

Banking transactions are processed in real time with necessary accounting entries, generated from relevant modules, automatically posted to the general ledger. The system general ledger supports two types of entries: actual and nominal. Balances are only affected by actual entries whether posted manually or automatically, while nominal are used with the budgeting module for financial projections.

### **Key Features**

- In-built fully functional multi-currency general ledger
- Real time transaction processing
- Real time updating of account balances
- Transaction reversal capability
- Back and forward-valued entry processing
- Multi-currency customer accounts
- Account statements with drilldown capability
- Account classification facility
- Balance sheet and profit & loss reporting
- Classification-based reporting
- Consolidation engine
- Budget monitoring

## **Correspondent Banking**

Correspondent banking facility enables the message exchange between the financial institution and its correspondent banks, automated incoming message processing and account reconciliation. It comprises Outgoing Message Processing, Incoming Message Processing and Reconciliation modules.

The sub-system fully supports SEPA, SWIFT and other XML-based formats. Outgoing messages are generated and released for uploading to the SWIFT interface at a specific processing stage defined in the workflow engine.

Incoming Message Processing module handles advice notes and statements received from the correspondent bank. The module automatically identifies payees on the advice note and creates a work queue of required credits to be made to respective accounts upon the receipt of confirmation. Internal accounting records and statements are reconciled in real time. Unmatched items are moved into a suspense account until their proper disposition is determined.

## **Key Features**

- Real time operation
- SEPA, SWIFT and other XML-based formats supported
- STP-based incoming message processing
- Mismatch reporting

## **Report Generator**

Report generator is a powerful and flexible reporting tool that provides comprehensive reporting functions. It enables the production of reports to comply with requirements of different regulatory authorities and meet information needs of the institution's management.

Each system module is supplied with a wide range of pre-defined module-specific reports which can be extended with custom reports set up by the user. Report generator gives the user the ability to design and programme any conceivable report, whether simple or complex, module-specific or system-wide.

## **Key Features**

- Comprehensive reporting functions
- Powerful generation of professional reports
- A wide range of standard reports available
- User definable custom reports
- Statistical and analytical reporting
- Ability to define report logic
- Ability to define database queries
- Ability to design query dialogues
- Export to spreadsheets
- User access level controls

## **Card Management**

The card management module is meant for small and medium-sized banks and financial institutions that offer white label payment cards to their customers and have to turn to the issuing bank for card transaction processing. The module provides the automation necessary to register cards issued by the issuing bank, keep records of card transactions and interchange data between the institution's system and the card processing software.

### **Key Features**

- Card life cycle setup;
- Card account application processing;
- Automated opening of card accounts;
- Card registration;
- Data interchange between the System and the Processing software (card orders, card account limits, transaction parameters) under ISO 8583 or other format supplied by the issuing bank;
- Automated posting of card transactions.

## **Cheque Processing**

The cheque processing module is designed to automate entire cheque processing cycle from accepting the account holder's order for a cheque book through to placing the cancelled cheque in the account holder's file at the end of cheque clearing cycle.

### **Key Features**

- Processing cheque book orders;
- Keeping record of issued cheque books and cheque numbers;
- Cheque discounting;
- Insufficient funds checks;
- Clearing of accepted cheques.

## **SMS Banking**

The SMS banking module was designed and written to enable authorised bank employees to validate the client's transfer instructions from their mobile phones by way of sending an SMS, containing the employee's authentication code and "Approved/Declined" literals to the banking system.

The module also gives the user the ability to send various types of messages and advice notes to the bank customers, e.g. to notify them of a debit or credit in their accounts. The bankcustomers are enabled to authorise standing orders and request account information via their mobile phones.

SMS module comprises 3 component parts:

- SMS Modem Setup
- Operator Settings and Access Rights Setup
- Security Codes Generator

## **Key Features**

- Remote validation of the customer's payment instructions
- Notifying customers of any event related to their accounts
- Remote authorisation of standing orders
- Sending/receiving account information to the customer's mobile phone

## **Customer Relationship Management**

Macrobank's in-built CRM subsystem is designed to enhance the bank's practices in finding new and serving the existing customers and covers operational, collaborative and analytical aspects of customer relationship management. The subsystem comprises the customer record module, document data bank, customer grouping facility and web-enabled front-office.

Customers of the financial institution will benefit from the ability to be served across the internet, without the need to go to the physical office, from the "expression of interest" stage and submitting required documents through to account opening, ordering banking products and services, communicating with the institution's customer service staff and receiving targeted marketing information.

Each interaction with the customer is added to the customer's contact history so that customers can interact with different bank employees, authorised to access customer data, without having to describe the history of their relationship every time they contact customer service.

Macrobank's CRM provides the bank with a single consolidated view of the customer's financial standing with the bank at any given time and enables financial forecasting and customer profitability analysis.

Macrobank's CRM is an invaluable tool which eliminates unnecessary paper flow and improves the quality of customer service in your financial institution.

### **Key Features**

- KYC management
- Document storage and retrieval
- Account (product) application processing
- Account holder/signatory relationship management
- Financial forecasting
- Customer profitability analysis
- Customer grouping
- Mailing lists/bulk-mailing facility
- Internal communication system
- Parameter searches
- Advice rule definition

## **Anti-money Laundering**

Financial institutions and other regulated entities are legally required to have special controls in place to prevent and report money laundering activities. Macrobank's AML subsystem will enable financial institutions to detect, investigate and report transactions of suspicious nature to relevant authorities. The subsystem provides automated monitoring of accounts, customers, and correspondents in search of suspicious activities and possible money laundering.

Macrobank's AML subsystem covers all major areas of AML compliance and streamlines AML processes in the financial institution. It comprises the transaction reporting module, customer identity management module, which is part of Macrobank's KYC management, and transaction monitoring module, designed to identify suspicious transactions or patterns of transactions, which may qualify for suspicious activity reporting.

### **Key Features**

- Currency transaction reporting (for transfers exceeding a specified amount)
- Customer profile setup
- Transaction patterns setup
- Monitoring customer transactions against their recorded profile, account history and industry average
- Alert rules setup
- Generating alerts where unusual activity is suspected
- Exercising due diligence processes for suspicious transactions
- Verification of the customer's identity
- Identification of blacklisted individuals, entities and countries
- Document validity period checks
- Dormant account tracking

## **Implementation, Staff Training and Technical Support**

Canopus Software Ltd. provides a whole range of services from system study to final testing to support the software implementation. An implementation team is assigned to the customer to analyse your existing system, develop system specifications, determine areas of customisation, prepare, install and configure the proposed Macrobank solution. Upon completion of the work, the team conducts a fully comprehensive testing of the system with the direct involvement of the customer in the testing processes. Macrobank products may be implemented on site, remotely or in our data centre as part of outsourced package.

In the case of on-site implementation, the customer's staff are trained in the process and free of charge. Alternatively, the basic training may be done in our headquarters where we have set up specially equipped classrooms, or remotely through the internet. The customer may choose to take an advanced specialist training course in a particular user role, e.g. system administration, teller operations, customer support service etc. Canopus Software Ltd. provides the trainees with all required printed materials.

### **Technical Support**

Technical support is provided free of charge during the initial six months of operations. After the free support period, the customer may choose to contract with us for an annual support package, which comprises:

- Online troubleshooter service
- Bug fixing
- Technical consultancy
- Regular updates
- Update related training

Support package subscribers are entitled to discounts on extension modules.

## **Outsourced IT Services**

Canopus Software Ltd. provides outsourced IT services to financial institutions in its dedicated data centre. The service package includes server co-location and maintenance, network setup and management, information security, disaster recovery and business continuity planning, archiving and Internet access.

Customers, who subscribe to the package, benefit from receiving high quality, professional IT services while considerably reducing costs associated with the maintenance and support of a financial application on site.

### **Key benefits of the package**

- Reliable infrastructure
- Secure environment
- 24/7 monitoring of servers
- Hardware maintenance
- System administration and troubleshooting
- Disaster recovery
- Business continuity planning

## **Company Profile**

Canopus Ltd. has been a software supplier and IT service provider to financial industry for more than 15 years. The company was set up by Max B. Ivanchenko, who is also its CEO, and partners in 1992 to create and market an advanced software system for small-to-medium sized retail and private banks. Canopus Ltd. also offers specialised application software for corporate treasuries, credit unions, remittance, payment processing companies and online bureaux de change.

We have implemented our solutions in more than one hundred financial institutions across the globe. Among them are small retail and offshore banks, corporate treasuries, credit unions and money service operators.

Ethical behaviour, integrity, high quality of software products, complete customer satisfaction, commitment to customers, introduction of innovations and continuous improvement of employees' skills are among our primary values. Canopus Ltd. is committed to its corporate values which are the foundation for building relationships and reputation of the company.

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