CHECK TRUNCATION SYSTEM
Image-Based Check Clearing System
Overview

Check processing is an essential service for all banking customers. In response to changing customer expectations and process requirements, banks are moving to completely revamp and digitize their operations. Specifically, the way paper checks are processed, cleared, and settled is changing rapidly. Check imaging and truncation—the replacement of paper checks by images and electronic data files—is driving this change.

Image-Based Check Clearing – A Snapshot

An image-based check clearing system, or check truncation system (CTS), is a solution for rapid clearing of checks undertaken by the central banks of many countries, such as the Reserve Bank of India, the UAE’s central bank, the Saudi Arabia monitoring agency, etc.

A CTS provides multiple benefits to customers by substantially reducing check clearing time. It improves customer service and increases operational efficiency by decreasing overheads related to physical check clearing. CTS also offers better reconciliation and fraud prevention.

CTS uses a check image, instead of the physical check itself, to clear the check. The check image is truncated at the presenting bank and then cycled through the check clearing process. Transactions are settled based on images and electronic data.
Newgen Suite for Image-Based Check Clearing

The suite has been developed based on Newgen’s imaging, document management, and workflow systems, comprising:

- **iBPS** - A versatile, rule-based workflow engine
- **OmniDocs** - A strong and robust document management system
- **Batch Scan** - A batch-mode scanning application with normal scanning, UV scanning, magnetic ink character recognition (MICR) data display, endorsement printing, and image quality analysis
- **Imaging Libraries** - Image quality analysis and verification

**Highlights**

- Integrated outward clearing (scanning and processing at presenting bank), inward clearing (processing central bank’s files at drawee bank), outward returns, and inward returns (handling the processing of returned/bounced instruments)
- Web-based access at client locations; no installation on client machines for patches or upgrades
- Client-server architecture, which supports multiple deployment models
- Integrated application for on-the-move relationship managers via web referral processing
- Integrated image quality analysis per the central bank’s guidelines
- Built-in centralized archival of check images, corresponding data, and audit trails with configurable search and retrieval options
- Extendable to automate other processes in the payments domain – post-dated check management, automated clearing house, real-time gross settlement, warrants processing, signature management system, etc.
- Extendable to Newgen’s proprietary ICR/OCR engine for auto-extraction, matching of the amount in figures and words, and automatic signature verification
- Enterprise-level scalable product; supports clustering and disaster recovery setups
Other Value-Adds

The application supports:

- PDP processing
- Corporate check scanning
- Mobile check capturing
- Web-based referral system
- Interest and dividend warrants processing
- Signature maintenance system
- Cash management
Integration Capabilities
The application can be integrated with the following:

- ATMs
- Check deposit kiosks, for multi-point capture capability
- APIs and/or hand-off file generation
- Multiple check scanners and application and database servers
- Core banking systems, such as Flexcube and Finacle
- Third-party applications, such as Middleware and message queues
- Existing clearing systems of banks
- Automatic signature verification systems

Based on Open Standards

- J2EE-based open and platform-independent architecture
- DOD and MoReq standards for records management
- ANSI standards, X9.37 and X9.90, for exchange of images and data and creation of image-replacement documents

Industry-accepted Security Standards

- World-class encryption and cryptographic standards, ensuring secure and reliable storage and transmission
- Support for smart cards and HSM cards
- Support for digital signatures to ensure non-repudiation and legal validity

Monitoring and Tracking

- Real-time, dashboard-based process monitoring to remove operational bottlenecks
- Comprehensive reporting and audit trails
Components of the Suite

- **CheckFlow** - Handle outward and inward clearing, and enable return processing at head offices and branches

  Architecture - Web-based, client server-based multi-user system with rights-based access management, built on Newgen’s low code digital automation platform

- **CheckExchange** - Implement rule-based sorting and settlement switch for clearing houses and central banks

  Architecture - Client server-based multi-user system with rights-based access management, built on Newgen’s low code digital automation platform

- **OmniTransport** - Upload and download interfaces for branches and head offices. This capability is essential when branches want to communicate with the head office on a secure network

  Architecture - Communication is done on a secure network over SSL with industry standard encryption

- **OmniDocs and Records Management System** - Store images and data at a central location, with the capability to deploy remote image servers at multiple locations for faster image access. RMS is available as an add-on component for managing the complete lifecycle of physical and electronic documents as per banks’ policies

  Architecture - Client server-based multi-user system. Complete with out-of-the-box integration with CheckFlow and CheckExchange

- **Signature Management System** - Capture, store, and retrieve signatures and mandate information of different accounts

  Architecture - Client server-based multi-user system with rights-based access management and rule definition

- **Web Referral System** - Enable on-the-move branch relationship managers to access and process images and associated data via the web

  Architecture - Web-based client server multi-user system. Comes with out-of-the-box integration with CheckFlow
Newgen’s Offerings for Banks and Financial Institutions

DraftFlow: Image-Based Draft Processing

DraftFlow provides a versatile and scalable solution for faster and more efficient draft clearing. It is an end-to-end solution to validate drafts against the bank’s core databases and easily raise exceptions, for efficient draft processing within stipulated time limits.

It offers the following features and benefits:
- Complete extraction of draft data, including cross-checking of information
- Cross-checking with back-end draft system for duplicate and expired drafts
- Integration with authorized signatures
- Streamlined operations to reduce manual overheads
- Reduction in fraud

OmniReports: Report Management System

OmniReports enables reports archival, distribution, and publishing for large banks. It compresses electronic reports generated across different systems—such as core banking, cash management, loans, trade, ATM, etc.—to as much as 1/13th of their original size, while providing seamless storage and retrieval. Banks that have total branch automation (TBA) and are shifting to core banking can import and store all of their previous reports, located across branches, into OmniReports.

OmniReports offers the following benefits:
- Reduced load on the core banking system
- Decreased printing costs, as reports can be instantly searched and viewed online
- Access to previous reports, even after transactions are removed
- Publishing of account statements on the web for self-service customers

Workflow Management

Newgen’s image-based workflow solutions include loan processing systems, credit appraisal systems, and LC and trade bill processing systems. Documents are scanned at branch locations and introduced into the workflow. These electronic documents move through various work steps where users can make decisions, mark exceptions, and approve the documents. This workflow enables collaboration across branches, zonal, and central offices.

Using these solutions, banks can receive the following benefits:
- Centralized processing
- Reduced turnaround time of transactions
- Optimized employee productivity
Why Newgen?

Rich implementation experience with features such as:

- Localization and support of multiple languages, including Arabic
- Built-in service monitoring and extensive logging for faster issue resolution
- Faster deployment and rollout at branches
- Standardized processes with regular upgrades to avoid potential errors
- Consistent environments for UAT and production for successful rollouts

Core Competence in Imaging
Newgen has extensive experience in imaging and has developed a rich set of imaging libraries for image transformation, compression, and enhancement

IPR Ownership
Newgen holds the IPR ownership of their offering (up to the engine level), which provides banks with easy maintenance and capacity for customization. Future developments can be integrated seamlessly and can cater to the bank’s most complex and focused needs, all within minimized time frames and incurring low support costs

About Newgen

Newgen Software is a vendor/provider of business process management (BPM), enterprise content management (ECM), customer communication management (CCM), document management system (DMS), workflow and process automation software. The company has a global footprint in over 66 countries with large, mission-critical solutions that have been deployed in banks, insurance firms, BPO’s, healthcare organizations, government and telecom companies.