

RS BillAbhi – Bank™

Bill Payment Platform – Powered by RS Software

Consumer Expectations in the Digital Era

Customers today want smarter and more convenient ways to pay their bills, seamlessly integrating these tasks with their everyday lives. Instead of standing in long queues, they want to be able to view and pay their bills from the comfort of their homes or offices using their favorite payment channels. Customers also look forward to discounts and cashback options when they pay bills through online bill payment portals. And whether they pay using mobile apps, web apps or through agents, consumers are becoming increasingly aware of the security of their personal information, a critically important factor in today's world.

Bill Payments Platform from RS Software

RS Software has successfully built the Bharat Bill Payment System (BBPS) infrastructure commissioned by the National Payments Corporation of India (NPCI). BBPS is a nationwide integrated bill payment system that offers interoperable and accessible bill payment services to customers through a network of agents, and allows multiple payment modes and instant confirmation of payment.

RS has developed both the Central Unit that governs, manages disputes and routes transactions through unified rails, as well as the Operating Units that connect to the Central Unit and facilitate processing of bills. Bills paid through BBPS have almost doubled from 10 million transactions in April 2017 to 19 million in December 2017, with value of bills increasing 46% during this time, according to global advisory firm KPMG.

RS BillAbhi – Bank™

RS BillAbhi – Bank™ is a bill payment solution from RS Software. It facilitates seamless payment of bills through diverse channels by on-boarding multiple banks to act as Operating Units for Customers and Billers, enabling millions to pay their bills through agent-assisted, business correspondent outlets, bank branches and online modes while adhering to NPCI technical and procedural guidelines.

RS BillAbhi – Bank™ is offered both as Software licensing model and Platform-as-a-Service (PaaS) / Software-as-a-Service (SaaS) model.

In the licensing model, RS BillAbhi – Bank™ is installed, run and operated at customer data centres. The bouquet of services includes implementation, customization, integration with different bank systems,

training, maintenance, enhancement and technical support. The product is available in two modules Customer facing Operating Unit (facilitating Customers and Agents) and Biller / Merchant Operating Unit (facilitating Billers), any of which customers can purchase separately or together. The product is made available to the licensee as a tangible product.

In the SaaS / PaaS model, the product is deployed on the public cloud as a hosted platform and presented as a service to customers. This includes separate implementation, customization and training services for every customer who opts for this model. It also includes the services of a Data Centre and Disaster Recovery Centre based in India. RS BillAbhi – Bank™ ensures 99.99% availability. Maintenance of application, infrastructure, patching, upgrades, backup and recovery of data will be managed by RS Software and / or its cloud partners.

Small banks and FIs with limited resources can avail the PaaS / SaaS model whereas large banks can opt for the licensed version of the product.

RS BillAbhi – Bank™ is also offered as a secured API/SDK microservice suite which customers can consume to build applications on their own.

RS BillAbhi – Bank™ Feature Set

- Complete bill pay management solution featuring consumer self-service, bill presentment, auto-pay, admin portal, mobile app, Agent / Agent Institute management portal, Online & Offline Biller Onboarding portal, LDAP authentication, reconciliation and reporting
- Processing speed up to 150 TPS Equipment Management
- Clustering and network load balancing ensure high availability
- Supports requisite certifications
- State of the art health monitoring system to facilitate business teams to take critical decisions
- Highly secured and customized industry standard data retention and archiving policy and techniques to maintain historical data for future reference and robust analytics
- Comprehensive set of canned reports for banks covering varied business aspects
- Secure, accurate and consistent processing of bill payments for recurring revenue generation

Software and Tools

The following open source software and tools have been used for developing the product:

Software/Tool	Source	Description
Spring MVC	Part of the Spring Framework	J2EE application Framework
Spring Reactor	Part of the Spring Framework	J2EE application Framework
Spring Batch	Part of the Spring Framework	J2EE application Framework
Spring Boot Web	https://spring.io	J2EE application Framework
Hibernate Tools	http://hibernate.org/	Hibernate Tools is a toolset for Hibernate implemented as an integrated suite of Eclipse plugins
Quartz	http://www.quartz-scheduler.org/	Open source job scheduling library that can be integrated within virtually any Java application
JAXB		Java Architecture for XML building

Software/Tool	Source	Description
HTML 5		HTML5 is the latest version of Hypertext Markup Language, the code that describes web pages
CSS3		CSS is a language that describes the style of an HTML document
Bootstrap	https://getbootstrap.com/	Popular front-end component library to build responsive UI

Security & Compliance

RS BillAbhi – Bank™ has been fully validated by the PCI Security Standards Council as conforming to PA-DSS v3.2 requirements till October 28, 2022.

[Click to view Validation Report online for Bharat Bill Payment Operating Unit \(BBPOU\)](#)
COMPANY NAME: RS SOFTWARE (INDIA) LTD

This protects sensitive information such as cardholder data by maintaining a secure network using suitable firewall configuration, encrypting transmission of cardholder data and sensitive information across open public networks, guaranteeing a strong access control mechanism, and tracking & monitoring all access to network resources and cardholder data.

Business Value

Banks and FIs can use RS BillAbhi – Bank™ to achieve the following business goals:

- Be part of the digital movement in India by unleashing the power of RS BillAbhi – Bank™ to enhance customer experience through a range of bill payment services
- Avoid capital expenditure and focus only on operating expenses to run the business
- Take advantage of pre-built integration with different systems such as NPCI Central Unit
- Complete the NPCI Certification process quickly and achieve faster go to market
- Enjoy decision support systems enabled by strong dashboard and analytics

Success Stories

State Bank of India (SBI)

As part of an aggressive digitization strategy to offer maximum convenience for customers, SBI, India's largest bank and Fortune 500 Company was looking for a bill payment solution that would:

- Support continuous changes and enhancements of rules and procedures
- Protect sensitive data and safeguard against cyber attacks
- Integrate with various payment channels and systems of the bank, NPCI and Billers
- Enable 4-way reconciliation and settlement of files (BBPOU initiated transactions, NPCI-BBPS settled transactions, Bank INB transactions, and Bank CBS transactions)
- Ensure 99.95% uptime

As the key technology partner of NPCI in developing the BBPS Central Unit, RS was the obvious choice for developing the billing solution for SBI. Using in-house subject matter expertise on billing systems, RS provided a robust billing system supporting up to 50 TPS with 99.95% availability. Based on the licensing model, the product was installed, run and operated at the bank's data centre and included implementation, customization, training, maintenance, enhancements and technical support. Usable by any customer having net-banking credentials, the modules built included bill fetch & payment, adhoc

payment, complaint management, daily reconciliation with NPCI Central Unit, Operating Unit, Internet Banking and CBS data, and automated biller synchronization for billers added/modified by NPCI.

The product is live since December 2017 and ~100,000 bill payment transactions are already being processed every month. In order to reach more customers, SBI has integrated this application with its YONO (You Only Need One) app for banking, shopping and investment needs. Bank customers are enjoying the facility of paying bills anytime, anywhere through Internet Banking, debit cards, and UPI, and are getting instant confirmation via SMS/email/downloadable receipt. A structured 4-way Reconciliation Report for settlement is available through the Admin portal. Complaints can be logged and monitored through the system, and new procedures, functionalities, and guidelines published by NPCI are regularly integrated into the product.

Industrial Development Bank of India Ltd. (IDBI)

IDBI bank has launched RS BillAbhi – Bank™ in November 2017. The system not only provides bill payment functionalities for unregistered customers, it also integrates with PAYWAY, IDBI's third party application to provide bill presentment and schedule payment functionality to IDBI registered customers.

ICICI Bank Ltd. (ICICI)

RS BillAbhi – Bank™ for ICICI, India's largest private sector bank, has gone live with Customer, Channel and Agent modules during FY18-19. A key feature is its availability through agent TrueCaller, the world's best caller ID and spam blocking app facilitating bill payments.

About RS Software

RS Software is a leader in providing vertically integrated solutions for highly complex, mission-critical payments environments. Today the company serves a client list that includes leading global payment brands within the electronic payments ecosystem including acquirers, issuers, payment networks, billing solution providers and other financial institutions. Presently the company is leveraging our billing knowledge gained from BBPS and other prestigious assignments, to build distinctive value propositions for its clients in a rapidly changing payments world.