



# PayIN

## A Unique Approach to Replenishment



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# PayIN Product Overview



## What is PayIN?

PayIN, Interact's solution to the multi-faceted interaction with subscriber accounts by way of vouchers, credit cards, funds and bonus funds. Interact understands the challenges faced by providers of real-time services. The ability to move funds from the source to the subscriber account and make them instantly available drives usage, which in turn drives additional replenishment. The delay of a single replenishment creates a negative user experience, a reduction in network consumption, and ultimately effects the operation's bottom line.

PayIN also drives additional revenue by encouraging more replenishment. Full historical data allow replenishments to be tracked and subscriber patterns understood. Notifications keep subscribers informed of their status to avoid balance depletion. Promotions encourage more frequent or higher value replenishments through the delivery of real-time rewards of funds or discounted usage.

Like the entire Interact product suite, PayIN is designed with Interact's long-established emphasis on flexibility. In addition, our modular architecture allows for quick development and deployment of new features. Note the following:

- A major service provider was able to move from 4th position to 1st within 6 months of migrating to this solution and has maintained that position for 2 years.
- A major service provider is able to launch quarterly propositions without requiring software changes due to the flexibility of the solution.
- This same service provider was able to scoop the competition and launch a new service weeks prior to their competitor thus taking more market share due to the flexibility and ease of use of the solution.

In order to best meet the needs presented by a diverse group of providers, PayIN supports a number of published APIs. The APIs are available to legacy systems for easy introduction into any network. PayIN features full integration into one of the world's most predominant commerce gateways. Alternatively, Interact's experienced software development staff can customize PayIN to interface with 3<sup>rd</sup> party commerce gateways.

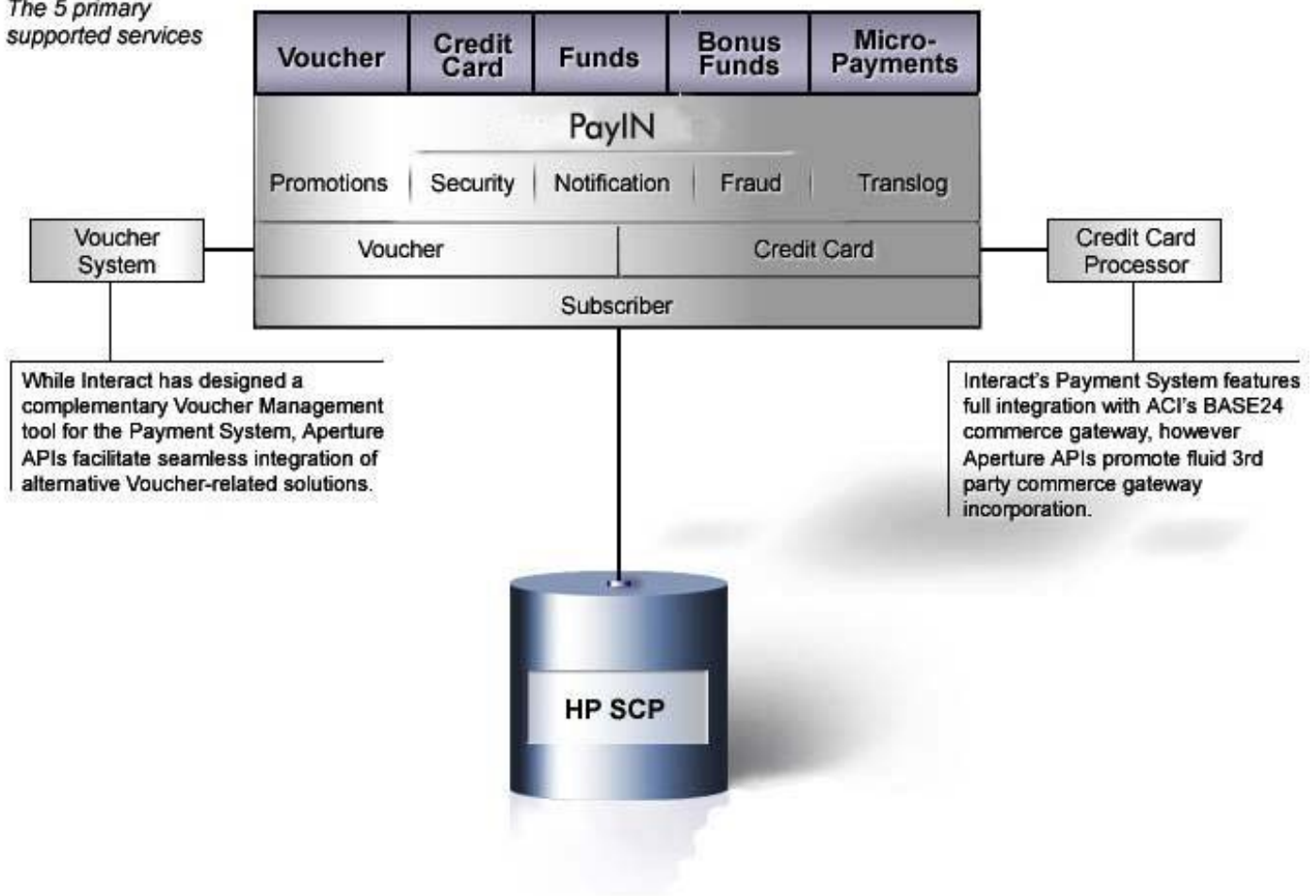
Interact's product line includes a variety of published APIs collectively termed Aperture. They are the gateway to all our systems. The Aperture Payment Suite is essential for seamless integration with PayIN.

## PayIN Software Architecture

Developed under an e-commerce architecture that promotes communications and interaction with external systems, PayIN allows authorized outside parties to credit subscriber accounts.

This essential task is performed through one of the primary services: Voucher Replenishment, Credit Card Replenishment, Subscriber Funds and Bonus Funds. Each of the services encompasses a core set of functions including Promotions, Security, Notification, Fraud, and History.

*The 5 primary supported services*



## PayIN Services

### ***Voucher Replenishment***

Voucher replenishment can be accomplished via PayIN integration with Interact's proprietary Voucher System, or via Payment System integration to a 3<sup>rd</sup> party solution. The Interact solution offers:

- High-performance voucher generation
- Voucher security
- Real-time voucher redemption.

PayIN's modular architecture facilitates the integration of 3<sup>rd</sup> party legacy voucher systems without sacrificing functionality.

### ***Credit Card Replenishment***

Credit Cards remain the most popular form of replenishment for providers. Finding new ways to make credit card re-use simpler is one means of driving credit card replenishments beyond current levels. PayIN offers a number of features for credit cards:

- Supported cards list allows PayIN to restrict credit card use to only those credit cards supported by the provider.
- Registration of Credit cards to subscribers eases credit card re-use
- 4-Digit entry – allows subscribers to re-use a previously registered card by only entering the last 4 digits of the card.
- Ease of 3<sup>rd</sup> party integration – Interact's PayIN is currently integrated with Retail Logic, one of the leading providers of credit card processor software. Interact has also integrated with ACI and Verisign processors. The system architecture, as well as Interact's experience with multiple 3<sup>rd</sup> party providers, facilitates ease of integration with any legacy system.
- PayIN hosts an API allowing 3<sup>rd</sup> party systems to request credit card replenishments.

### ***Subscriber Funds***

The subscriber funds service provides a mechanism for external systems to credit subscriber accounts. By utilizing this feature the operator can offer services that were previously unobtainable. This service enables service providers to design their own credit card authorization system or to integrate into a Point of Sale (POS) system.

### ***Subscriber Bonus Funds***

Subscriber bonus funds are an extension of subscriber funds. Bonus funds are used by the promotions subsystem to represent reward funds rather than funds purchased by the subscriber. Bonus funds can also be provisioned as a loyalty reward. In addition, customer care and APIs allow credits to bonus funds for provider-defined purposes. When deployed with the Invigorate real-time rating engine, bonus funds are maintained separately from purchased funds.

## PayIN Services

### ... *And More*

Through the creative use of the services, variations on replenishment can be created and implemented, encouraging replenishment via avenues that were previously out of reach.

#### **Text Replenishment**

Replenishment via text message is especially effective when implemented using PayIN's credit card API and 4-Digit feature.

#### **Micro-Loans**

Sometimes subscribers are unable to replenish immediately but desperately need to place a call. Why not offer them a micro-loan? This is a small credit that can be granted to a subscriber to get them through the current need. Next time they replenish, PayIN repays the loan from the replenishment amount. It can even charge a penalty fee for those who wait too long to replenish.

#### **Auto Replenishment**

There are two ways to automatically replenish accounts using the subscriber funds API or credit card API.

- Scheduled replenishment automatically performs replenishment on a pre-defined schedule such as weekly or monthly.
- Low-balance replenishment automatically performs replenishment when a subscriber's balance falls below a given threshold.

## PayIN Features

*Some options only available when combined with the Invigorate real-time rating engine or the VIP platform. Please contact your sales representative for more information.*

### **Promotions**

With PayIN's promotions feature, a service provider can easily create a number of unique promotions based on each of the following criteria:

- Total amount of cumulative replenishment in X number of days
- Total number of replenishments in X number of days
- Amount replenished for a given transaction

The rewards for meeting the specified criteria can be any of the following:

- A specified amount, credited to bonus funds
- A percentage of the replenishment total
- Usage credits, such as 100 free texts or 10 free minutes of calling

The option of tiered promotions provides increasing rewards for high-value subscribers. For example, provide a 5% bonus funds uplift for replenishments up to \$20 and a 10% uplift for replenishments between \$20 and \$50. It's also possible to encourage use of certain replenishment channels. For example, 100 free texts for replenishment via the web, while replenishment via the IVR offers no reward.

## **Security**

Because Interact knows that security is of utmost importance to any service provider, we have furnished PayIN with the following security methods.

- Encryption/obfuscation of data in tables and transaction history
- Login Security
- IP Security: Logins must match certain IP addresses
- This sensitive data, including voucher numbers and credit card numbers, is stored using the default AES192 algorithm (i.e. 'Advanced Encryption Standard' with a 192 bit key).

## **Notification Options**

Interact recognizes that it is extremely beneficial to notify subscribers about low balances, account changes, and / or relevant promotions, therefore we have embedded an assortment of notification mechanisms into PayIN for your convenience, including but not limited to:

### **SMS via SMPP to SMSC**

SMS messages are available to inform subscribers of successful replenishments and receipt of promotional rewards. The text of the message is completely configurable by the service provider and may incorporate basic data elements such as current balances, replenishment/reward amounts and fund expiration dates.

### **E-mail (priced separately)**

Should the provider prefer to issue e-mail notifications for replenishment status and reward status, this option may be licensed separately. This may be used instead of SMS or in combination with SMS, offer subscribers a choice of notification methods.

## IVR

Pre-call announcements for low-balance or nearing expiration dates can encourage replenishment activity before forced disconnects that are an annoyance for pre-paid customers and detrimental to provider profits.

## ***Fraud Management / Barring Thresholds***

Interact addresses fraud by equipping PayIN with threshold mechanisms geared to stop deceptive users in their tracks. Alternately, these same thresholds can be set up to bar non-deviant subscribers from exceeding certain boundaries in order to limit an operator's exposure to any one client or catch inadvertent errors made by subscribers trying to credit their balance (ex. If they only want \$10 added to their account and they accidentally put in \$10,000). Each of these is configurable via:

- Credit class – new subscribers may not be offered the same freedom with certain forms of replenishment that are granted to established, reliable subscribers.
- Total amount of cumulative replenishment in X number of days. PayIN supports multiple levels, such as restrict users to \$100 in a single day and \$500 in a month.
- Total number of replenishments in X number of days. PayIN supports multiple levels, such as restrict users to 3 replenishments in a single day and 15 in a month.
- Maximum balance
- Maximum Bonus balance
- Minimum/Maximum replenishment amount

## ***Transaction Logs***

When utilizing PayIN it is essential that all of your transactions are accounted for. Interact ensures this by creating detailed transaction logs for all transactions that are attempted.

- Creates logs for all transactions received
- Stores voucher and credit card in obfuscated format
- Stores internal and external transaction id's
- Stores internal and external time stamps
- Hourly replenishment statistics

## PayIN Interfaces

As stated earlier, Interact's PayIN enables external systems to credit subscriber accounts. These external systems can access Interact's prepaid systems by a number of simple methods:

### **File Interface**

A simple file interface is available to process back-office credits. However, it must be combined with one of the real-time interfaces to use PayIN to its potential.

### **HTTP URL request with XML formatted response**

Its simplicity makes this one of the most popular and fastest means of integration to provide real-time replenishment.

### **Java API's**

Robust Java APIs allow for experienced developers to integrate with PayIN, taking advantage of the added performance and security Java APIs have to offer over their HTTP equivalent.

### **TCP/IP socket interface**

A must for tier-one telcos with ten million subscribers or more, Interact's TCP/IP replenishment server offers the security, availability and scalability needed to maintain and grow the subscriber-base.

In addition, Interact offers a full suite of customer care and IVR systems that integrate with PayIN.

Providing additional value to PayIN's services, a web-based GUI provides a user-friendly interface to PayIN, allowing providers to configure and schedule the myriad of payment options.

Figure 1 illustrates how a care operator might add subscriber funds or bonus funds. Note the reason code. Reason codes are user-defined options that must be input with each credit. It allows operators to track why funds are being credited to subscribers via the customer care channel.

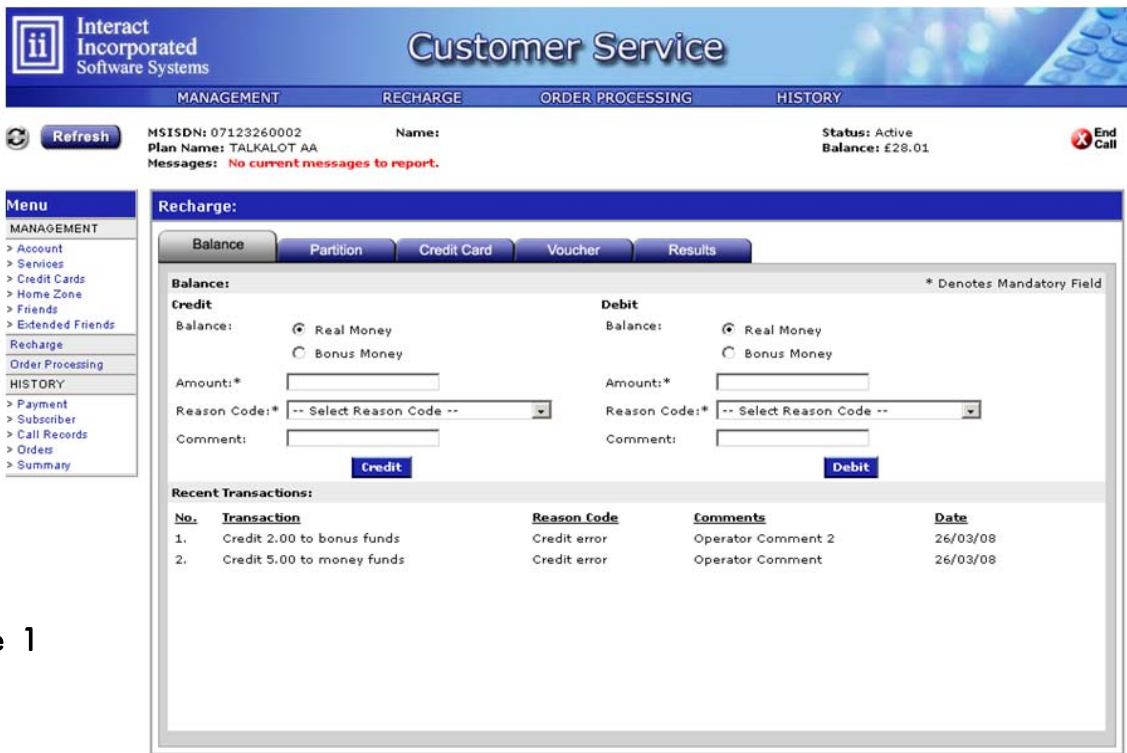


Figure 1

Figure 2 shows how the PayIN customer service interface displays a variety of history records. The granularity of payment records is designed to provide support for customer care, operations and financial departments as well as to provide statistical data to aid evaluation and planning.

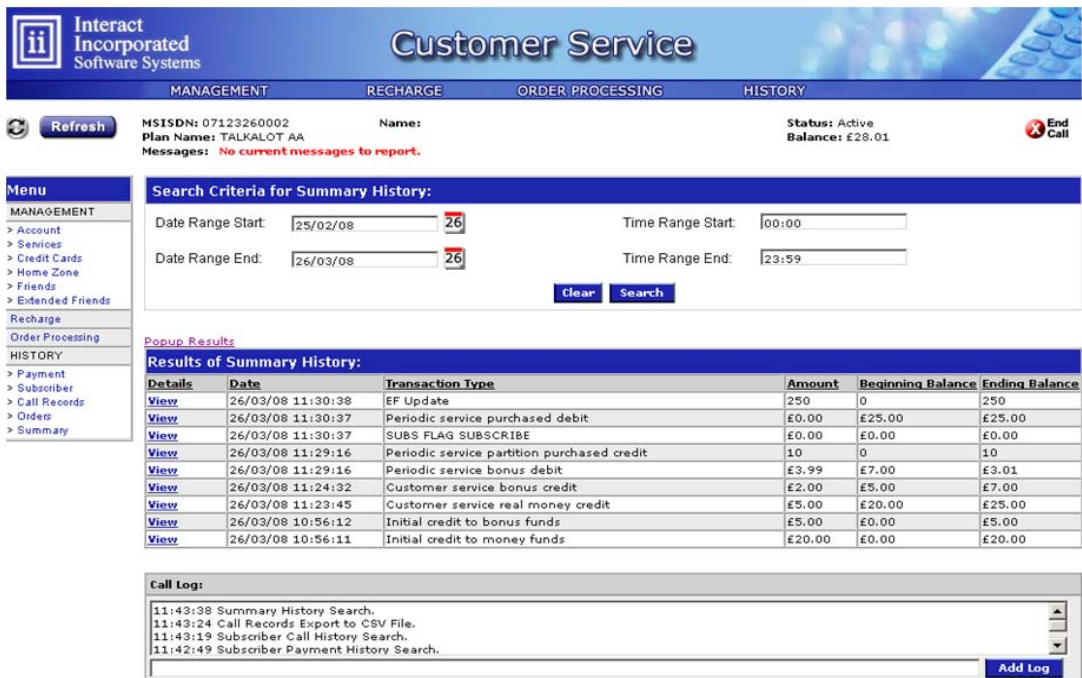


Figure 2

Since 1981, Interact has been dedicated to providing highly customizable Communication and Rating solutions to discriminating clients spanning the globe.

Readily equipped to supply extremely short time-to-market solutions accommodating both entry-level and central office class models, Interact builds every solution on an open, distributed, and modular architecture which is deployable on a variety of hardware platforms.

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