

Overview

About White Labeling

The concept of White Labeling means that a larger bank (“Liquidity Provider”) with greater liquidity in a specific asset class, traditionally FX, would provide this liquidity to a smaller or regional bank (“White Label Bank”) that has relationships with end corporate clients. Both the banks benefit in many ways. The Liquidity Provider increases its deal flow and, indirectly gains access to the corporate clients of the White Label Bank. The White Label Bank is able to deal with its corporate clients in other currency pairs (or other asset classes) in which it might not ordinarily make a market.

In recent times, there have been technical advancements and the trading of treasury products has been moving away from the telephone to the Internet. In this scenario, it has become desirable for Liquidity Providers to provide a technology solution to White Label Banks to relieve them of the pain and the cost of having to acquire and maintain this technology, while still gaining the business benefits of White Labeling. The bigger banks, or Liquidity Providers, now provide a White Labeled or privately branded online trading system to smaller White Label Banks that in turn provide it to their corporate clients. The Clients are not aware of the White Labeling relationship, but continue to deal with the White Label Bank.

About NextSet PTX for White Labeling

NextSet PTX is an online trading application for treasury products. It has been built ground up as a cutting-edge, standards based technology that provides online trading capabilities to Investment Banking divisions of Tier 1 and 2 banks. The product has been extended to include the ability to handle White Labeling. Given the architecture of the application, it lends itself well to be able to be customized and extended very easily. The product can be distributed by Liquidity Providers to the smaller banks with whom they wish to establish a White Labeling relationship.

Entities in PTX White Labeling

The different entities involved in the White Labeling scenario include, Liquidity Providers, White Label Banks and End-users.

Liquidity Providers

Liquidity Providers are typically large banks with an established client base and are active in investment banking. These banks are focused on increasing business volumes. Hence, they partner with smaller banks to provide them with liquidity, trading services and in some cases a trading platform. Liquidity Providers provide the rates / prices, transaction capabilities and settlement capabilities for the products in which they wish to provide liquidity.

NextSet PTX is completely integrated into the systems of Liquidity Providers and is therefore effectively a “pre-certified channel” for liquidity - thus providing a “ready to deploy” solution to the corporate clients of the White Label Banks.

The Liquidity Providers can also provide the application as a hosted service to White Label Banks. By so doing, these Liquidity Providers free the Clients of White Label Banks from investing in and maintaining technology.

White Label Banks

White Label Banks are typically Tier 3 or 4 banks who trade with their corporate clients by means of conventional methods like telephone. In turn, the White Label Bank is considered to be the Liquidity Provider’s Client. The Liquidity Provider provides liquidity or prices for a range of products, to the White Label Bank.

White Label Banks can use the NextSet PTX White Labeling solution to focus on sales without having to worry about technology, giving their Clients access to more efficient and sophisticated trading models. Using the PTX White Labeling system, the White Label Banks can provide a web-enabled trading platform for their Clients as well as increase the range of products that they offer to their Clients. In addition to using NextSet PTX to connect to and trade with Liquidity Providers,

the White Label Banks can also enable online trading with their Clients for products such as Money Markets or FX Local currency pairs, in which they provide the liquidity.

If the Liquidity Provider provides the system as a hosted service to the White Label Bank, the White Label Bank is not required to invest in or support the technology associated with managing the products.

A White Label Bank may choose to enter into a White Labeling agreement with a Liquidity Provider thereby increasing its range of services and products without losing its identity as well as its client base. The identity of its Clients is protected and no information regarding its Clients is sent to the Liquidity Provider, there by safe guarding its client base.

End-Users

End-users are Clients (corporations, investors, funds, wealthy individuals or governmental authorities) of the White Label Bank.

White Label Bank's Clients deal with the White Label Bank online, using the PTX White Labeling system. For each deal conducted by the Client with the White Label Bank, on products whose liquidity is provided by the Liquidity Provider, an equivalent trade is generated on the Liquidity Provider's system. The Client is not aware of the destination of the transaction. It could be consummated within the White Label Bank, for products offered by the bank or could be consummated with the Liquidity Provider, for products that they provide.

Through this relationship, the White Label Bank retains the credit risk of its Clients while the Liquidity Provider manages the market risks.

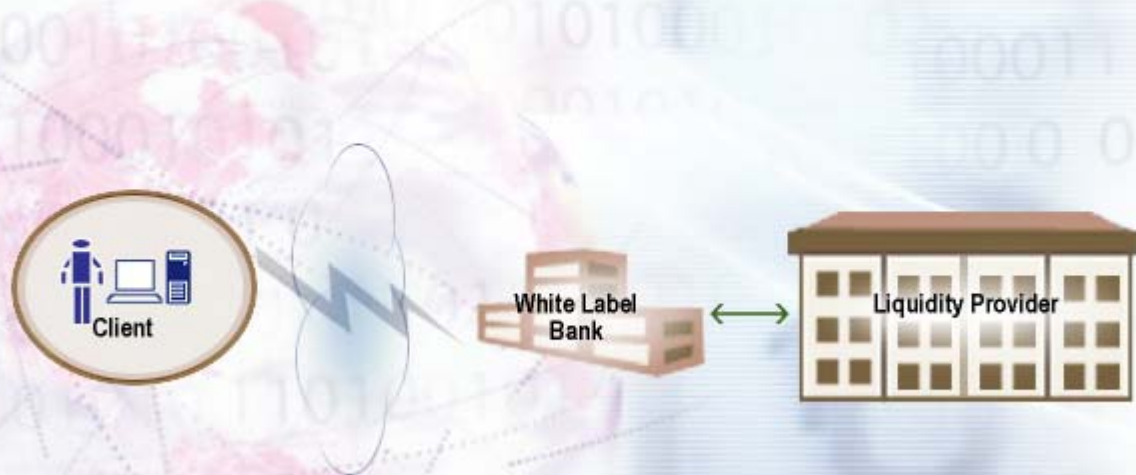


Figure 1. Entities in NextSet PTX White Labeling Scenario

Benefits of NextSet PTX White Labeling

The NextSet PTX White Labeling solution provides a host of business and technological benefits.

Business Benefits

The key business benefits of the NextSet PTX White Labeling Solution for each entity are summarized below:

Liquidity Provider

- Increase business volumes
- Access a larger client base at a low cost
- Increase revenue by splitting margins with the White Label Bank
- Single party risk, without having to deal with thousands of Clients

White Label Bank

- Provide a wide product range to its Clients
- Increase revenue from a wider product range
- Maintain its identity with the Client base
- Customize trading components with one or more Liquidity Providers (multi-bank support)
- Outsource market risk for exotic products
- Stronger relationship with Clients

Client

- Single location, online access to a wider range of products
- Transparency to multiple Liquidity Providers
- Have highly accurate real time prices and direct trading capability in products currently not offered by the White Label Bank

Technology Benefits

The key technology benefits of the NextSet PTX White Labeling Solution for each entity are summarized below:

Liquidity Provider

- Low-cost solution to increase liquidity, using advanced technology
- Direct integration into trading and settlement systems to enable online trading
- Option to host the solution internally or provide access to a hosted service
- Option to provide technology solution to White Label Banks who do not have much technology capabilities

White Label Bank

- Access advanced technology and a fault tolerant trading platform at a low cost
- Have easy access to Straight-Through-Processing technology
- Completely integrated solution to provide seamless transaction capabilities
- Ability to consolidate information from multiple Liquidity Providers and products traded by themselves
- Ability to provide a transparent solution to their Clients over a low cost medium

Client

- Use of an advanced trading platform as compared to traditional methods
- Use of a reliable trading system and tools to generate various reports on the history of trading
- Browser based application that does not need any additional software to be installed on the Client machines and can be accessed from anywhere with Internet access

High Level Components

The NextSet PTX White Labeling system incorporates the following components:

- Liquidity and Technology Solutions
- Customization
- Back Office Integration

Liquidity and Technology Solutions

When small to medium-sized banks enter into a liquidity partnership with a larger bank, the smaller bank's product range broadens. Most often Liquidity Providers support new products from pricing to settlement. NextSet PTX White Labeling supports this process by providing technology support for trading and pricing, and an easy interface to the back office systems for Straight-Through-Processing (STP). The advanced design and technology of NextSet PTX White Labeling provides faster and more reliable access to products, price feeds, quotes, portfolio management and settlement.

NextSet PTX has a completely modular and sectional design. This makes it easy to ensure that the White Label Banks can maintain and trade in the products for which they provide the liquidity, while seamlessly providing other products to their Clients, even when not providing the liquidity themselves. The solution can also maintain the position of the Clients within the White Label Banks systems even though the trades are consummated at the Liquidity Provider. This way, the Client is able to view all his positions with the White Label Bank from one set of screens even though the deals themselves are with multiple banks. This also gives the Clients and the White Label Bank the capability to report and view all information including history of price requests and responses, trades, negotiations, settlement instructions etc.

Complete integration between the White Labeled solution and the Liquidity Provider enables the users of both banks to view and monitor all transactions. Also, flexibility in handling cross currency trades as single FX trades split into their base currency trades, across internal and multiple Liquidity Providers is provided.

The NextSet PTX White Labeling technology is robust, scalable and user-friendly. It is a 100% open standards and Java-based solution that leverages existing infrastructure and is simple and quick to implement and take to market.

Customization

NextSet PTX White Labeling provides a fast and efficient solution to the needs of the White Label Banks to expand their product range. The NextSet PTX White Labeling system allows extensive customization to suit a White Label Bank's specific requirements. The White Label Bank can:

- Configure the products available for its Clients
- Configure screens to be consistent with its corporate image such as incorporating the company logo and color schemes, by the extensive use of style sheets

Back Office Integration

White Label Banks may have heterogeneous backend systems maintaining inventory, portfolio, quotes and credit limits of its Clients. The NextSet PTX White Labeling system provides a robust and seamless integration to these backend systems by means of adapters. For products that are not part of its inventory, White Label Banks can avail the Liquidity Provider's inventory and portfolios by linking into the published APIs of the Liquidity Provider. The White Label Bank can:

- Use a set of APIs published for the integration of most of the popular back office systems in the financial industry
- Use a set of APIs published for the integration of any proprietary back office systems

NextSet PTX White Labeling Components

The NextSet PTX White Labeling system includes a vast suite of features and functions. It includes extensive administration and trading capabilities. Some of the more important features include:

- Product Management
- Pricing Modes and Margins
- Credit / Trading Limits
- Support for Pricing FX Crosses
- Generating Reports
- Multi-Bank Support

Each of these components can be configured by the White Label Banks to suit their business processes.

Product Management

The White Labeling solution provides White Label Banks extensive capability for controlling and managing the products that they offer to their Clients. While the financial products available through the NextSet PTX interface to the Client may appear to come from the White Label Bank, their pricing, management and settlement could be done by different banks. The

availability of each product to a Client is set up by the White Label Bank and the final publishing of the products and their prices to the Clients is completely controlled by the White Label Bank.

Pricing Modes and Margins

The NextSet PTX White Labeling system permits White Label Banks to present multiple pricing modes to its Clients. These include:

Automatic Pricing – any price request made by the Client is automatically responded to by the system

Semi-Automatic Pricing – any price request made by the Client is automatically priced, but is presented to the White Label Bank's Traders for confirmation before responding to the Client

Manual Pricing – any price request made by the Client is sent to the White Label Bank's Traders for pricing and the system does not automatically price the request

These pricing modes can be configured by the White Label Bank based on a number of criteria such as Trade Value, Settlement/Value Dates, Maturity Dates, Time of Day, Client etc.

Apart from these pricing modes, the NextSet PTX White Labeling system also supports the '**Executable Streaming Price**' mode, wherein the prices are continuously streamed to the Clients' browser screens, for products that need constantly updated price publishing. In this mode, by default, the Client can pick up the price and execute it without compulsorily having to make a price request.

Intelligent integration between the various pricing modes enables the Client to use 'Executable Streaming Prices' in conjunction with making price requests to the Traders.

All prices streamed and quoted are aggregated from various sources into the White Label Bank and then margined appropriately before quoting to the Client. These sources could include internal sources, Liquidity Providers or price feeds such as Reuters, EBS, and Bloomberg etc.

Sophisticated implementation of the price publishing mechanism enables the White Label Bank and the Client to identify stale prices, which could be caused by network issues. The system can be configured to identify stale prices at two levels:

- At the Bank level, where the system checks if the prices are being received from their respective sources
- At the Client level, where the system checks if the prices are in sync with the prices published by the White Label Bank

The logic to identify stale prices is configurable and manageable. The White Label Bank can set it up as one of three triggers or a combination of all. The triggers are:

- If a price update has not been received or published for a configurable number of milliseconds
- If a price update is beyond a certain configurable tolerance range from the last update
- If a price update is beyond a certain configurable tolerance range from the average of the last 'n' updates

The prices streamed to the Clients include the following components:

- **Base price received from their respective source** – These prices can be configured to be either the bid price, ask price or the mid price.
- **Bank Margin / Spread** – These margins are set by the Trader for each currency pair or product and are applied to the Base Price before the price becomes the published price for the bank. The bank margin / spread can be different for the bid prices and the ask prices.
- **Client Margin / Spread** – These margins are set by the Salespersons or the Traders and are based on a number of parameters such as Trade Volume, Value/Settlement Date, Maturity Date, Time of Day, Client etc. These margins are applied to the Banks Published Prices before being quoted to the Client.

Because each Client could fall under different categories, the system also supports defining Client Margins based on 'Margin Groups' wherein similar Clients are grouped together and similar Client Margins are applied to them. This concept also makes it easy to manage the margins when there are a number of Clients.

All these margins can also be setup separately for bid and ask prices.

Based on all the above pricing and margining modes, potentially each Client could be published different prices that are tailored based on their performance with the bank.

The Pricing mechanism diagram shown in *Figure 2* illustrates how NextSet PTX handles prices before the final price is made available to the White Label Bank's Client.



Figure 2. White Labeling Pricing Mechanism

Credit / Trading Limits

Credit and Trading Limits are controlled by both the White Label Bank and the Liquidity Provider. When a Client makes a price request for a product offered by the Liquidity Provider, the Client's request is first checked against the Client's limits. If the Client's price request is within the predefined limits, the request is then sent across to the Liquidity Provider.

If the Liquidity Provider too is running NextSet PTX, then the request is checked against the White Label Bank's limits with the Liquidity Provider.

The limits can be configured online to ensure minimum risk to all parties.

For FX Crosses, the limits are checked after converting the Trade amount to an equivalent base currency amount (using the current spot rate) for which Limits are set.

Support for Pricing FX Crosses

Cross currencies are those that do not include USD. For example, let us assume that the White Label Bank Exchange Administrator has configured JPY/CHF for currency cross rate. This FX trade can be decomposed into its constituent USD based currency pairs, i.e., JPY/USD and USD/ CHF. Further, the White Label Bank manages the margin on and takes the JPY/USD position, whereas the Liquidity Provider manages the margin on and takes the USD/CHF position. When a Client clicks on the published price for JPY/CHF, the pricing legs for the Bank-side Salespersons are displayed as follows:

- USD/CHF leg is viewed by the Liquidity Provider
- Both the JPY/USD and USD/CHF legs are viewed by the White Label Bank
- JPY/CHF price is viewed by the Client

The Holiday Schedule in the administrative set-up reflects holidays in each of the “home countries” for currency crosses. For example, in the case of JPY/CHF, the Liquidity Provider and the White Label Bank may wish to include a holiday table showing amalgamated holidays for Japan, Switzerland, and USA. The combined holiday tables provide a choice to be selected for particular holidays of “next business day after the relevant holiday dates” or “next business day prior to the relevant holiday dates”.

Generating Reports

The Liquidity Bank's Traders can generate reports for various operations performed by the White Label Banks' Clients and Traders. The standard reports available are comprehensive and provide every angle of the data that would be required by the Clients and the banks. In addition there is also published 'Database View based APIs' which could be used by third party tools such as Crystal Reports, to generate custom reports.

Multi-Bank Support

Using the multi-bank concept, a White Label Bank can have one or more Liquidity Providers configured in its NextSet PTX system. This gives the White Label Bank an ability to offer a wider range of products to its Clients. When a White Label Bank sources a product from more than one Liquidity Provider, it can designate one Liquidity Provider as the Primary source and the others as Secondary, Tertiary and so on. If the price request fails at the Primary Liquidity Provider (for example, if the limit is exceeded as explained earlier in the section Credit / Trading Limits), the White Label Bank can forward the request to one of its Secondary Liquidity Providers for that product and so on. There need to be pre-arranged business agreements in place before any price request can be forwarded to any liquidity provider. This also includes having pre-determined limits for the products being traded.

If a Liquidity Provider does not host the NextSet PTX White Labeling system, the White Label Bank can be connected to the Liquidity Provider via adaptors (by configuring the NextSet PTX System APIs).

NextSet PTX White Labeling - Architecture

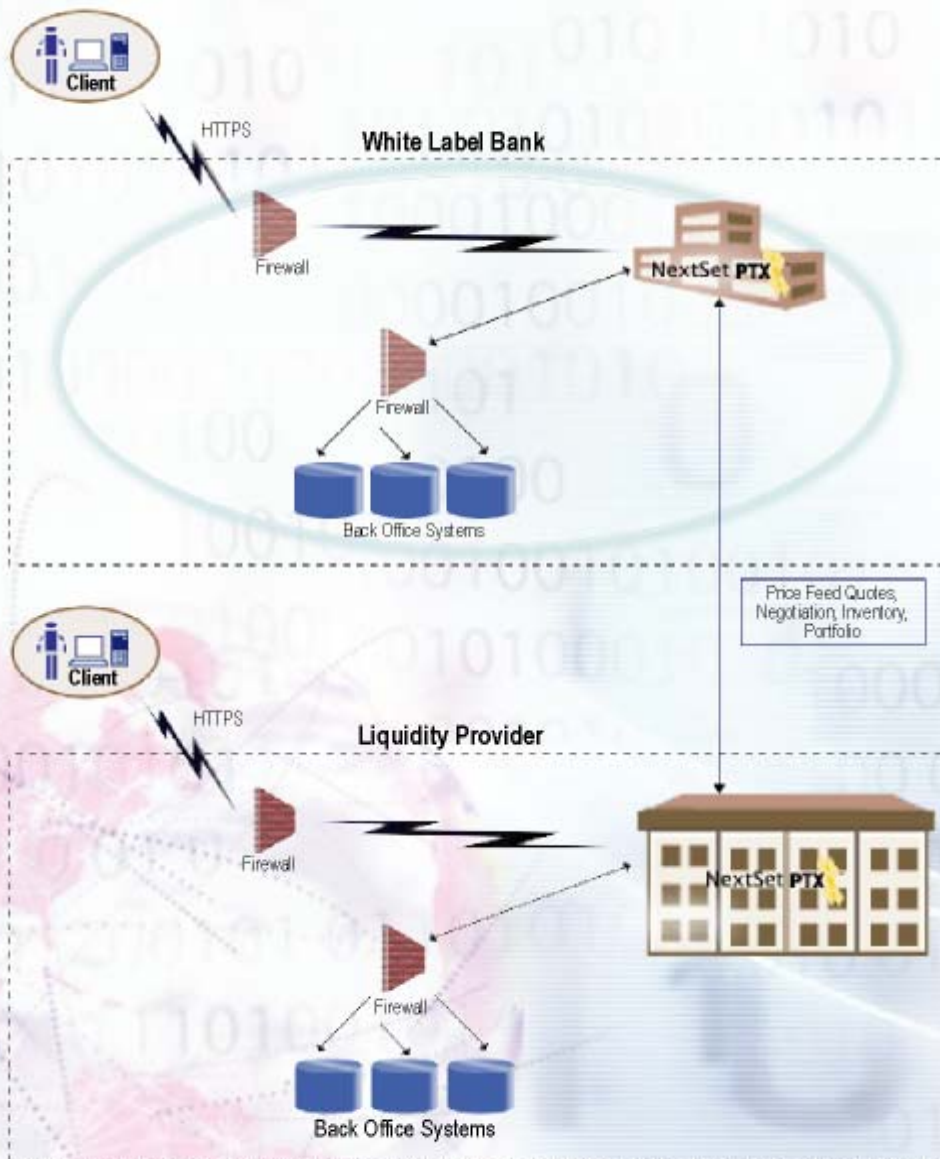


Figure 3. NextSet PTX White Labeling Architecture



About IT&e Limited

IT&e is a publicly listed company headquartered in Sydney. IT&e maintains state-of-the-art development centers in Australia and India and regional offices in the USA and Europe.

For more information about the TradeSpace Matching Engine visit us on the Web at www.ite-fs.com

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