

Rx Marketplace

Information Manual

This document provides a functional overview of the essential component parts of Rx Marketplace for all Users within the Rx Marketplace, be it the Community Sponsor, the Pharmacy or the Supplier. This document is not strictly a technical reference, but has been compiled to initiate the reader into the essential workings of the Rx Marketplace.



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The Rx Marketplace

The Rx Marketplace is a fully automated, online platform that allows for a quick and easy ordering procedure of **Prescription Products** between Pharmacies and Suppliers. The Community Sponsor, UniPhar, oversees the Rx Marketplace, allowing for an optimised process in which the Pharmacy is guaranteed access to the Lowest Cost Supplier and the Supplier is guaranteed the full reach of the Rx Marketplace. By using the Rx Marketplace all parties will experience a streamlined, transparent exchange that will enhance to customer satisfaction, higher levels of fulfilment of prescription products.

Document Purpose

The purpose of the Rx Marketplace Information Manual is to describe the function and form of the Rx Marketplace for all parties involved, such as Pharmacies, Suppliers and the Community Sponsor UniPhar. The Rx Marketplace Information Manual is not strictly a technical reference however it is not a user guide either, but has been compiled to familiarise the reader with the essential workings of the Rx Marketplace. Technical details, where presented, are accompanied by a user level explanation of terms used. In addition to this there is a glossary of terminology used within the Rx Marketplace Information Manual presented at the back of the document. Diagrams will be utilised throughout this manual in order to enhance the users understanding of the Rx Marketplace and to provide clarity.

Benefits for the Individual Parties of the Rx Marketplace:

PHARMACY BENEFITS

- ✓ Access to a vast, restricted, competitive online marketplace
- ✓ Time saving ordering system with an automated Order Response confirming fulfilment
- ✓ Automated, optimum price sourcing guaranteed
- ✓ Increased levels of fulfilment of prescription products by using Multi Supplier Sourcing

SUPPLIER BENEFITS

- ✓ Access to a large, self-contained online marketplace
- ✓ Standardised method of buyer interaction, enabling a unified product listing and pricing management
- ✓ Increased levels of customer satisfaction
- ✓ Streamlined, automated, closed loop ordering process

COMMUNITY SPONSOR UNIPHAR

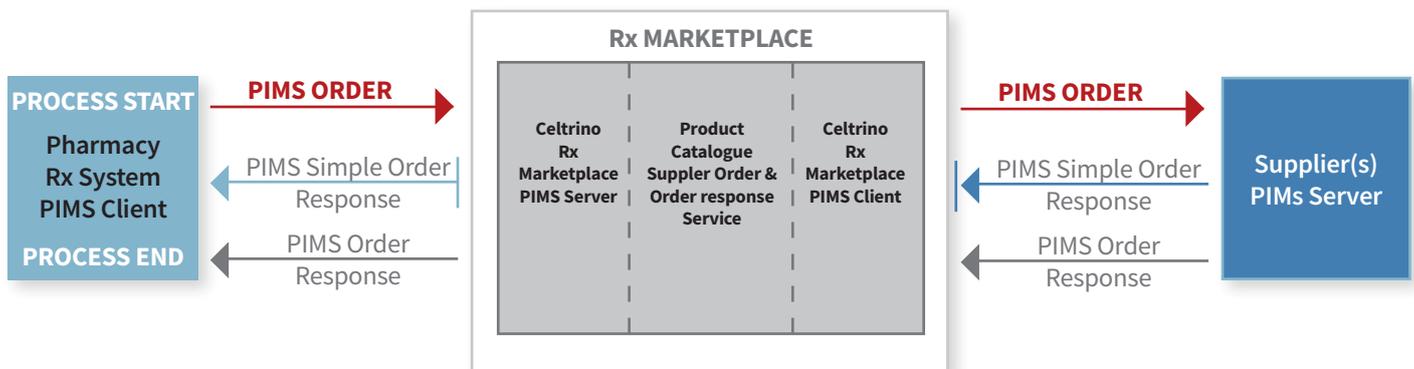
- ✓ Access to a large, self-contained online marketplace
- ✓ Wider reach within the industry
- ✓ Optimised closed loop ordering process

Rx Marketplace Overview

The Rx Marketplace allows Pharmacies to send Orders (PIMS Compliant Orders), via their Rx Systems, directly to the Rx Marketplace. These PIMS Compliant Orders will be acknowledged by the Rx Marketplace using a Simple Order Response. Then the Order will automatically be matched with the Lowest Cost Supplier for any particular Rx Product. Suppliers will automatically receive PIMS Compliant Orders through the Rx Marketplace requesting Order fulfilment. The Suppliers will then in turn respond with an Order Response confirming fulfilment, this Order Response will be made available for download by the ordering Pharmacy, via the Rx Marketplace.

NOTE: additional steps will occur within this process chain and each will be explained in greater detail later in manual. Diagram (1.0) below provides a simplified graphical representation of this process.

Rx Marketplace Overview (Diagram 1.0)



Functional Blocks within the Rx Marketplace

The Rx Marketplace is constructed from a combination of integral functional blocks. Each block has its specific functional purpose, which allows the Rx Marketplace to process all actions smoothly and efficiently. The overall process chain incorporates additional and essential tasks which are identified and explained in subsequent sections. To help understand the function of the individual blocks read the following overview:

Rx Marketplace UI Function (Pharmacy, Supplier & Buyer Interface)

In order to interact with the RX Marketplace through the User Interface (UI) a Company must first be setup to do so. Once setup the Company User can freely use all assigned services on the Rx Marketplace. The assignment of services is based on the Permissions granted to the individual logged in Users within a given Company. The UI identifies the specific services allocated to each individual User Type. The UI can be accessed using a standard Internet browser, such as Internet Explorer, in conjunction with the correct URL and the designated User ID and Password.

Sample of services available through the UI include:

- ▶ Documents Page: all sent or received documents of the company are available to user
- ▶ My Company Profile
- ▶ File Upload Service, for uploading product and price files
- ▶ Product Catalogue Management

Rx Marketplace PIMS Server

The Rx Marketplace PIMS Server is the interface through which all forms of communication between the Pharmacy Dispensing System and the Rx Marketplace takes place. Pharmacy PIMS Clients upload PIMS Orders to this Server. Simple and Full PIMS Order Responses are made available for download by Pharmacy PIMS clients from this Server also. This is the only Communications channel between the Pharmacies and the Rx Marketplace which carries orders.

Pharmacy Rx System - PIMS Client (External to the Rx Marketplace)

The Pharmacy Rx System (PIMS Client) is integrated, as software, within the Pharmacy's own Dispensing System on the Pharmacy's premises. Orders that are created on the Pharmacy Dispensing System are converted to PIMS standard Orders and uploaded to the Rx Marketplace PIMS Server. The PIMS Client is also responsible for downloading simple Order Responses which acknowledge that an Order has been received and Full Order Responses that confirm the Supplier and fulfilment.

PIMS Multi-Client Service (Internal Marketplace Component)

The Rx Marketplace PIMS Multi-Client Service is the interface through which the Rx Marketplace exchanges Orders, Simple Order Responses and Order Response documents with the Supplier PIMS Server. This PIMS Multi-client Service is an integral part of the Rx Marketplace infrastructure and connects to all Supplier PIMS Servers.

Supplier PIMS Server (External to the Rx Marketplace)

When a Pharmacy order arrives into the PIMS Rx Marketplace, it enters via the PIMS Server. It is then forwarded to the PIMS Multi-Client Service where it is routed to the Supplier Order Service for further processing into supplier orders. The PIMS Server acts as the gateway to the Rx Marketplace for all inbound Pharmacy orders and outbound to the Pharmacy for Simple Order Response and Order Responses. This server is crucial for Pharmacy and Marketplace electronic message exchange.

Supplier Order Determination Service (Internal Marketplace Component)

The function of the Supplier Determination Service is to process Pharmacy Orders and split them into one or more supplier orders based on which supplier is deemed optimal for each product on the order. Optimal refers to the Lowest Cost Supplier for each individual product.

Order Response Service (Internal Marketplace Component)

Once an Order has been sent on to a Supplier, the Supplier is expected to respond within a designated time frame. This response is referred to as an Order Response and is directly related to the originating Order. The Order Response Service processes these responses and depending on the suppliers promised fulfilment does one or more of the following: Generates an Order Response for the Pharmacy if the Supplier has met fulfilment, aggregates the Order if it has not met the EOv, creates a new pharmacy order for all unfulfilled products.

Rx Marketplace Product Catalogue and Management (Internal Marketplace Component)

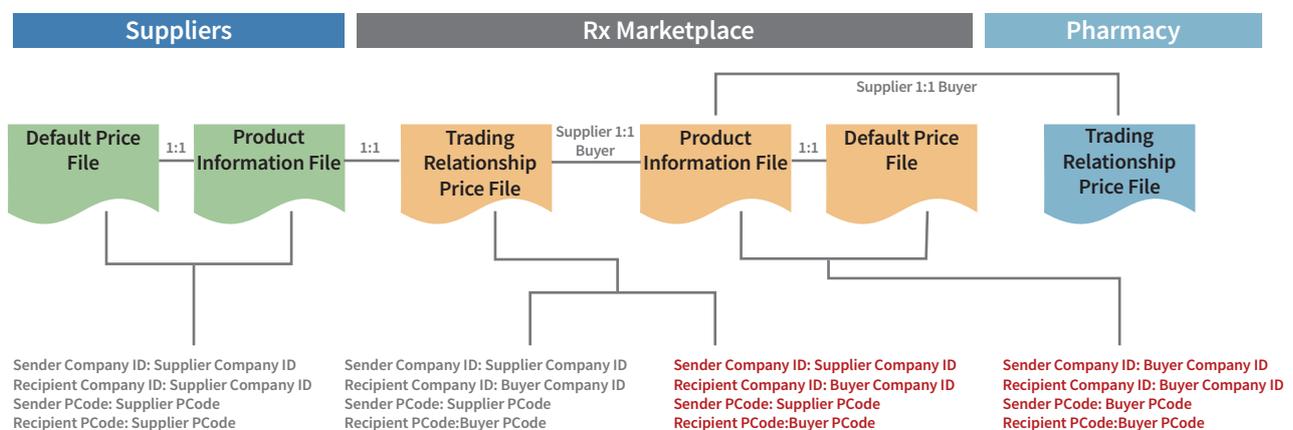
The function of the Product Catalogue is to provide for the addition, negotiation and maintenance of an agreed and approved range of products for sale on the Rx Marketplace. All Companies maintain their own Product Catalogue on the Rx Marketplace. The Supplier can suggest additional products and prices to the Community Sponsor, UniPhar, but only products, which are approved and agreed upon, will be considered by the order determination service. (Any product being passed to the service which is not in the UniPharMPs product catalogue will be routed directly to UniPhar to fulfil.

► Product & Price files

These files are the building blocks of the Product Catalogue. Each Company will have a **Product Information File** for each product in their catalogue, this file contains all the nonmonetary product attributes. If the company wishes to sell a product they must first create a **Default Price File** which will be linked to the Product file. It will contain the default price that a company will sell this product for. When a company wishes to sell a product they create a **Trading Relationship Price File** which is sent to the prospective buyer. The Trading Relationship Price File is based on the default price file however a supplier can modify it to give a custom pricing to a prospective Buyer. These files must be accepted by the Community Sponsor (hence linked to the Rx Marketplace Product Catalogue) before the product will be ordered.

NOTE: These Trading Relationship Price Files can be created in two ways: either by using the File Upload Service or by using the Rx Marketplace User Interface product screen provided.

Product, Price and Trading Relationship Files(Diagram 2.0)



► File Upload Service (Product & Price Files)

This service is available to Rx Marketplace and Suppliers for uploading Product Information and Price files. This service facilitates bulk uploads of product and pricing information.

► Product Maintenance Service

This is an integral part of the Product Catalogue Service and relates to the updating of product attributes such as pricing, description, listing or de-listing products as required to keep the Product Catalogue current. While these actions are vital to the inner workings of the Product Maintenance Service the process occurs behind the scenes.

► Product Catalogue Change Auditing

This is an integral part of the Product Catalogue Service and keeps track of changes made to individual products. This information is valuable and vital if a Buyer wishes to investigate how, when and who made changes to product information or pricing.

Business Intelligent Service (Internal Marketplace Component)

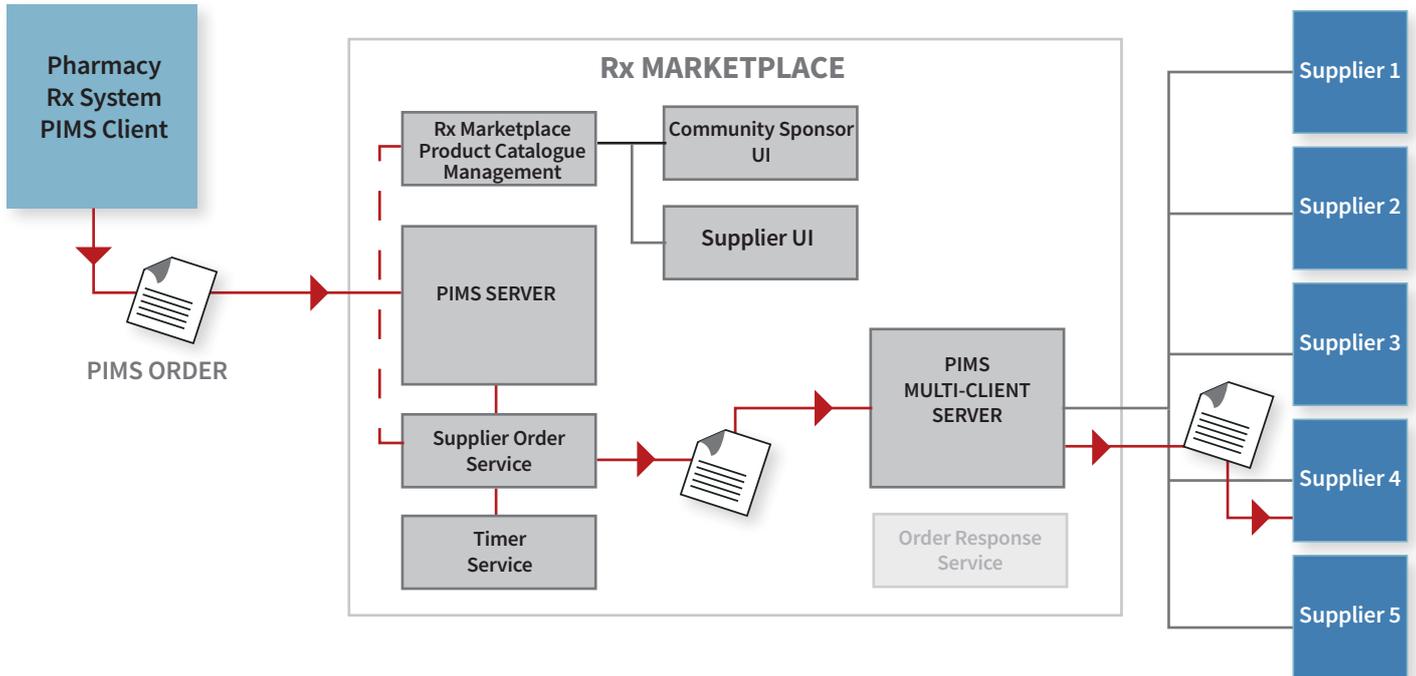
The Business Intelligence (BI) Service is responsible for processing the underlying data captured during the processing of the Rx Marketplace. BI Reports can be customised based upon specific individual queries.

NOTE: This service is not available as standard.

PIMS Ordering and Response Process

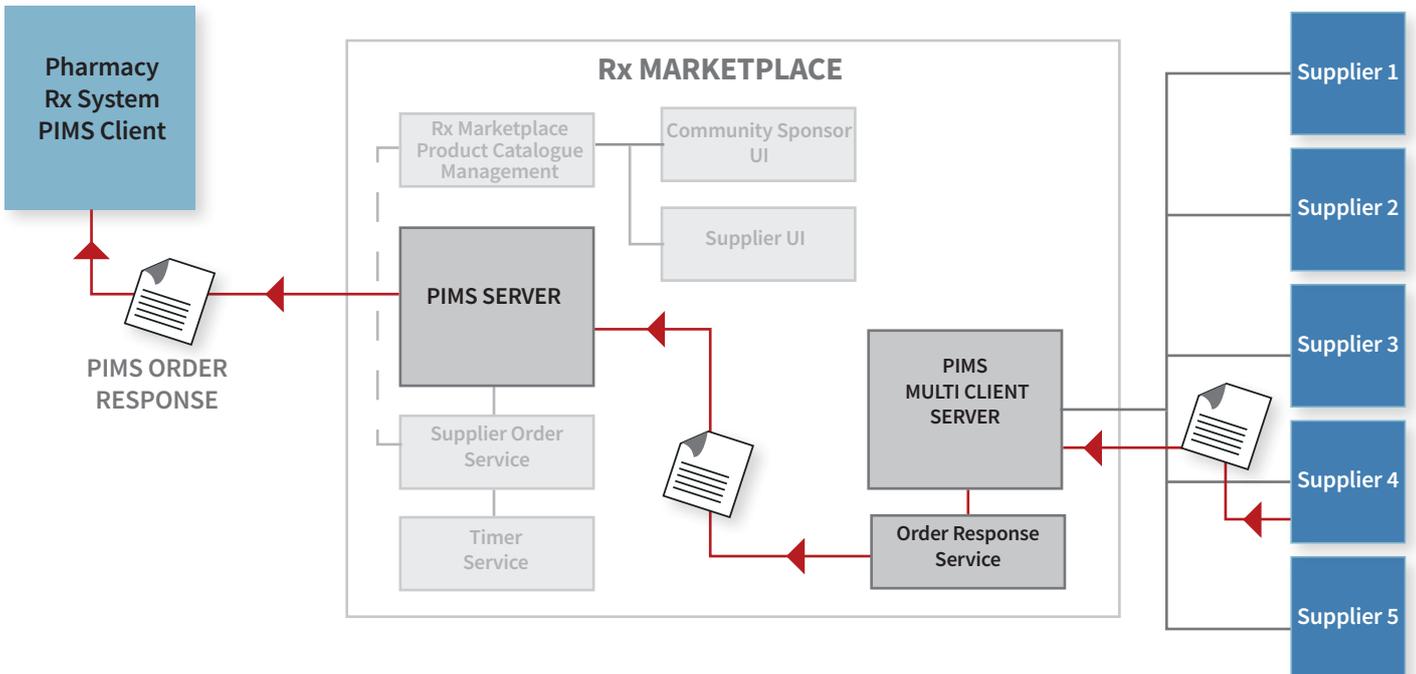
The following two diagrams provides a clear understanding how the individual functional blocks interact with each other

The PIMS Ordering Process (Diagram 3.0)



The Pharmacy sends the PIMS Order, via their own Pharmacy Dispensing System, to the Rx Marketplace PIMS Server. Once the Order arrives into the system the Supplier Order Service checks the Rx Marketplace Catalogue for the product request, sources the Lowest Cost Supplier and activates the Timer Service . The PIMS Server then forwards the PIMS Order on for processing. Once this is done the PIMS Order is sent on to the selected Lowest Cost Supplier.

The PIMS Response Process (Diagram 3.1)



Once the Lowest Cost Supplier accepts the order for fulfilment a PIMS Order Response is sent to the PIMS Multi-Client Server. This Order Response is processed and sent on to the PIMS Server and then made available for the originating Pharmacy to download.

Service definition - Rx Marketplace Interfacing

There are a variety of ways to interact with the Rx Marketplace and each one depends on the role and task being performed within the system. Interactions can take one of the following forms:

- ▶ The automated Electronic Transaction Method which is used when orders and order responses are exchanged and processed electronically using the PIMS protocol as per *diagrams (3.0) and (3.1) on page 8*.
- ▶ The File Upload Service, which is used by the Rx Marketplace Buyer and product Suppliers to upload products and price files as part of the product catalogue service. The User needs to be logged in to the Rx Marketplace and have predetermined access in order to avail of this upload service.
- ▶ The Rx Marketplace User Interface (UI) is dedicated to manual interaction using the various functions presented:

1) **Pharmacies** may interact with 'Aggregated' orders. They may also view all documents of which they are the Sender or the Recipient. Pharmacies may also manage their colleagues .

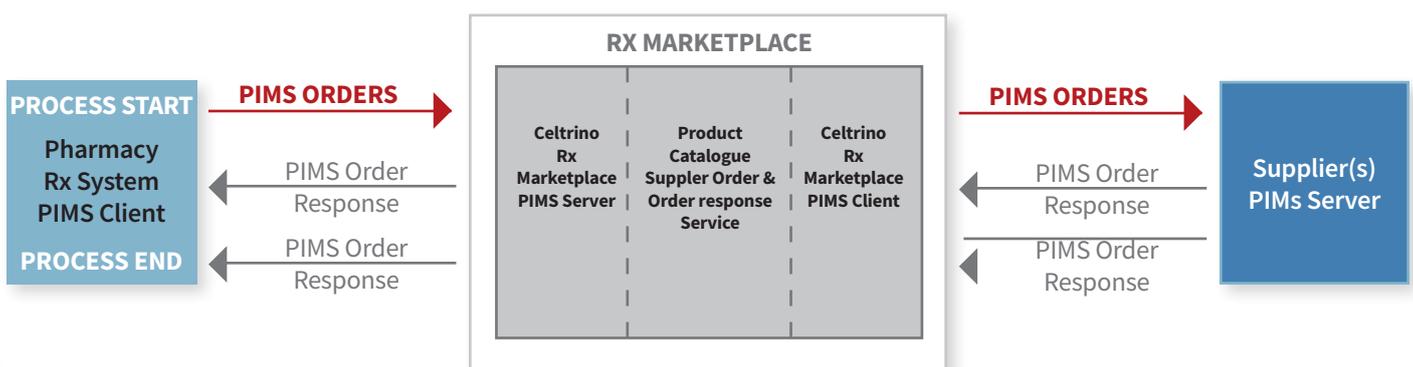
2) **Rx Marketplace Community Sponsor** can login and review order status, make amendments to the Rx Marketplace Product Catalogue i.e. review, amend, list, delist, and reject products. Administration functions can also be accessed through their UI.

3) **Rx Marketplace Suppliers** may login and make amendments to their product catalogue i.e. suggest new products for listing, suggest changes to existing products and make amendments to the Supplier product catalogue and pricings. Suppliers may also view all documents of which they are either the Sender or the Recipient and they can manage their colleagues or company.

Service Definition - Rx Marketplace PIMS Server

The PIMS Rx Marketplace Server acts as the entry and exit point for Pharmacy communications within the Rx Marketplace. Orders arrive into the PIMS Server where they are automatically routed to the Rx Marketplace. The Rx Marketplace acknowledges receipt of every Pharmacy order in the form of a Simple Order Response, which is made available for download to the Pharmacy PIMS system. Supplier Order Responses are also made available for Pharmacy download, and provide fulfilment information about current Pharmacy orders awaiting completion. The relationship between the Order and Simple Order acknowledgement is *One:One* (one order to one Simple Order Response), while the relationship between the Order and the Order Response can be *One:Many* (one order may result in many Order Responses, as there can be multiple Supplier Orders generated from a single Pharmacy Order). This is explained in more detail in the Supplier Order Service section of the manual (*see page 11*).

PIMS Server (Diagram 4.0)



Service Definition - Supplier PIMS Server (External to Rx Marketplace)

When an order arrives into the PIMS Rx Marketplace it is forwarded on to the PIMS Multi-Client Service, from here it is then routed to the Supplier Order Service for further processing.

PIMS Orders are converted to an internal Rx Marketplace Standard Document Type before further processing by the Supplier Order Service i.e. Approved Retailer Order type. The use of internal, standardised document types means that the Marketplace's internal workings are external document type independent, as all document types will be converted to the standard Rx Marketplace document types and processed in the same way. This ensures a standardised service provision.

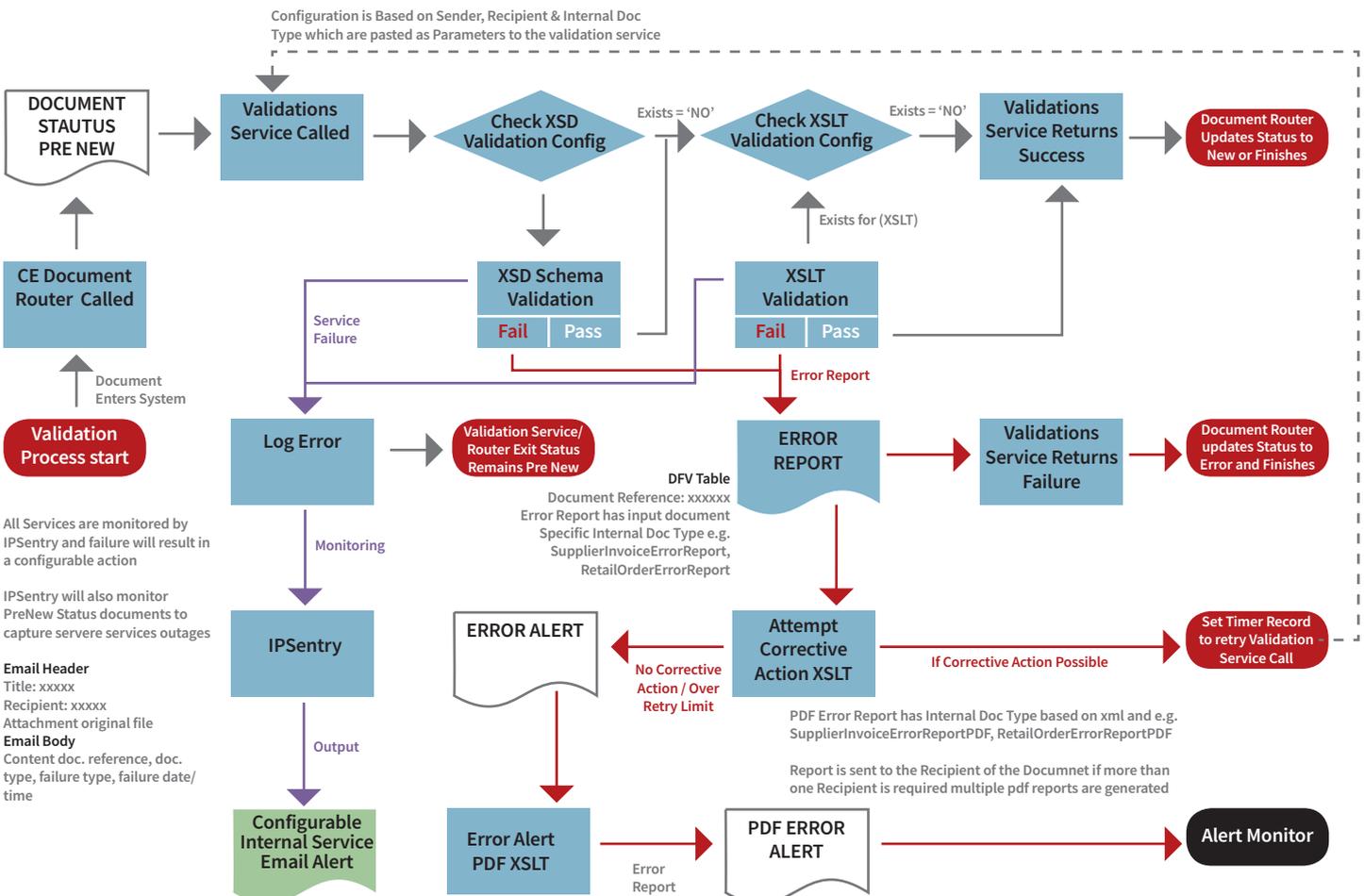
Service Definition - Validation Service

When a document enters the system or is created new within the system, the Validation Service is triggered. This service, once triggered, may perform two distinct validation types.

- ▶ Schema validation (XSD) – this validates the message structure
- ▶ Business Rule validation (XSLT) – this validates the message data content (Payload)

The outcome of the validation process is either a good file or an error plus associated alert, and, in some cases, a corrective action. All documents enter the system with a Pre-New status, and depending upon success or failure of the validation process, may result in an updated status of New, based on passing the validation service call, or Errors based on a fail of the validation service call.

CEX Router Validation Service (Diagram 5.0)

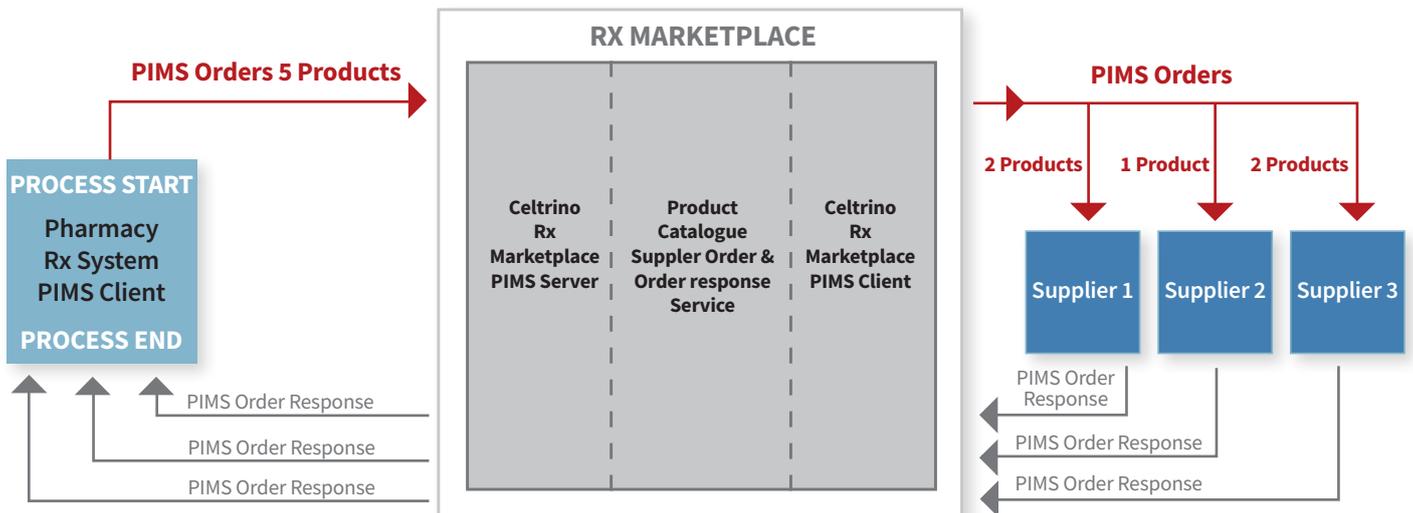


Service Definition -Supplier Order Service

The Supplier Order Service will take the *Approved Retailer Order* and process it both at a header and at a line level. At header level this results in the identification of the where the document originated from i.e. Pharmacy, document Recipient (Rx Marketplace and Delivery Point Details). This information is needed for routing and tracking the originating order and the associated order responses. At line level, products and the required quantities are identified. The Lowest Cost Supplier is determined by looking at all the Trading Relationship prices that are active for the ordered product. Each Price File relates to a single specific Supplier and the cheapest supplier is selected.

If the first selected Lowest Cost Supplier cannot fulfil the order, due to lack of stock, the request goes back into the system and the next lowest cost supplier is selected. This will reoccur until the order can be filled. If fulfilment is not possible then this implies that the product is out of stock with all Suppliers. If a product cannot be matched against products listed within the Product Catalogue, then this product order line is sent directly to UniPhar for matching and processing. The above process will continue until all products have been matched against a suitable Supplier and may result in multiple Supplier orders being generated from one Pharmacy order.

Supplier Order Service (Diagram 6.0)



The Supplier Order Service will generate Supplier consolidated orders (internal document type) which, in turn, are converted to PIMS Orders for the PIMS Multi-Client Service. Each originating order may be transformed and split into several distinct Supplier PIMS Orders. However since the originating order is assigned a batch ID and order number suffix the split orders can be identified and traced. Once the Order has been sent the Timer Service is triggered. Once triggered the Supplier must send a PIMS Order response to the Rx Marketplace within a predefined time frame, this allows for speedy processing and it also allows for a closed loop between Orders and associated Supplier response.

The Order Response Monitor Service automatically checks to verify if a Supplier has responded to an order with a fulfilment status. If a Supplier does not return an Order Response within the predefined time frame, the service automatically creates an Order Response confirming non-fulfilment and the original order lines are returned to the Supplier Order Service to be matched with the next optimum Supplier. If the Supplier responds after the time frame has expired the Order will be rejected.

Direct Pharmacy and Supplier Interaction with the Rx Marketplace

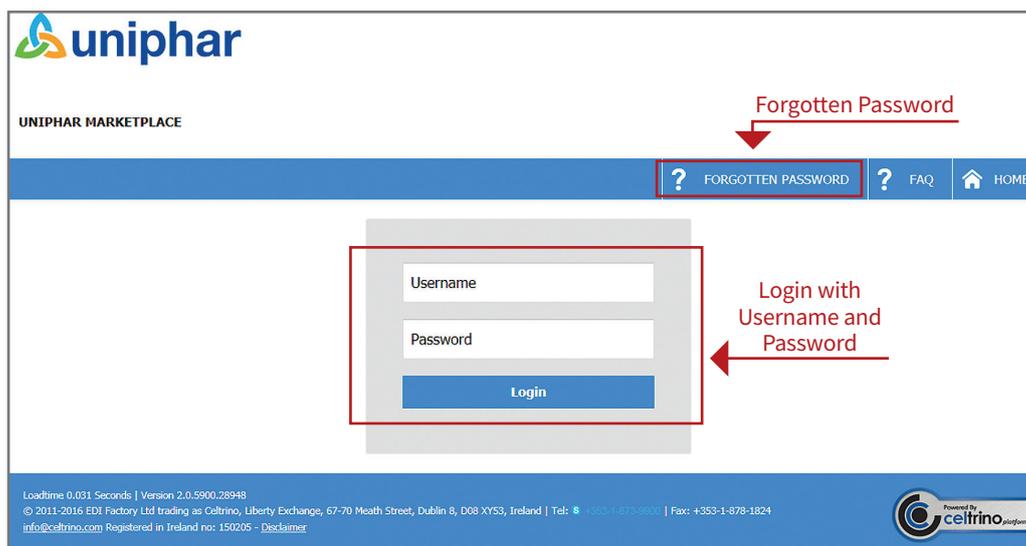
1.) The **Pharmacy** can access the Rx Marketplace by entering the URL (the internet address) into their Internet explorer web browser. This will take them to the Login page of the Rx Marketplace.

If a **Supplier** wants to join the Rx Marketplace they must contact the Community Sponsor UniPhar directly. The contact information can be found on the FAQ (Frequently Asked Questions) page. Once a Supplier has become part of the Rx Marketplace Community they can access the Rx Marketplace by using an active Internet Explorer Web Browser and the URL for the Login Page.

2.) To login to the Rx Marketplace the User must enter their registered email address into **Username** and then enter their personal password into **Password**. Then they can click the Login button.

Attention: Once logged in, the system will be active, but if there is no interaction with the Rx Marketplace for more than two hours (120 min) the User will automatically be logged out and a new login is required.

Screen Shot of Rx Marketplace Login Page



3.) If the User has forgotten their password they can click on the **Forgotten Password** button on the blue navigation panel at the top of the page. This will take them to the Forgotten Password Page. By entering the registration email the Rx Marketplace will send the User an email and they can follow the link made available to them in the email to reactivate their password.

4.) Users can logout of the Rx Marketplace by clicking **Logout**.

The Logout button is clearly displayed on the navigation panel at the top of the screen. By simply clicking on the logout button the Pharmacy can exit the RX Marketplace at any time.

5.) When logged in to the RX Marketplace the User will automatically be directed to the **Documents Page**, this page is also referred to as the **Home Page**. While logged in User can access the Documents/Home Page from any other page within the Rx Marketplace platform by clicking on the **Home Button** clearly displayed on the navigation panel at the top of every page. On the Document/Home Page the User can access all documents, both past and present, to which their Company is either the Sender or the Recipient i.e. Orders, Order Responses and Alerts. To simplify document searches there are filtering options available to the User. The Document/Home Page also enables access to Notifications, the Product Catalogue and Aggregated Orders, provided the User has Permissions to view them, these sections are accessed by clicking on the individual tabs.

Screen Shot of Rx Marketplace of Role Permissions

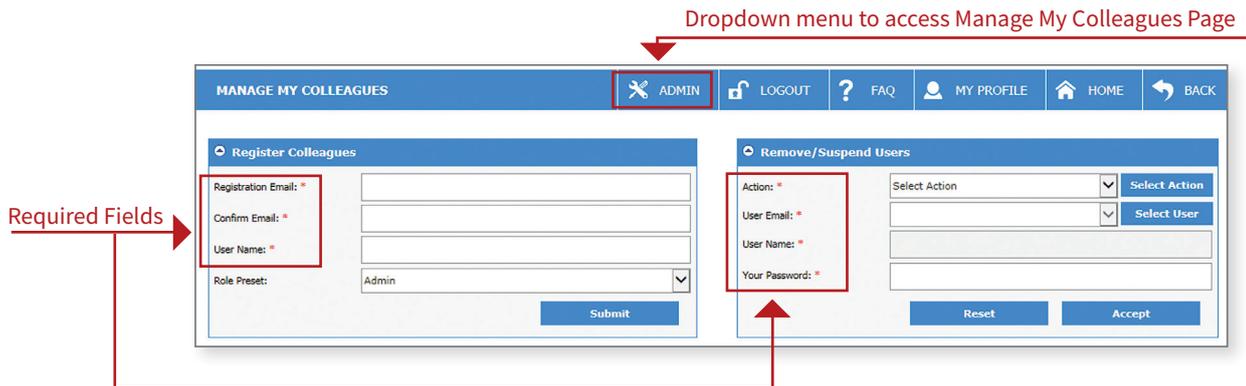
The screenshot shows the Unipharm Rx Marketplace interface. At the top, there is a navigation bar with the Unipharm logo and the text 'UNIPHARM MARKETPLACE'. To the right of the logo, there are several utility buttons: ADMIN, LOGOUT, FAQ, MY PROFILE, HOME (highlighted with a red box and labeled 'Home Button'), and BACK. Below the navigation bar, there are four main tabs: Documents (highlighted with a red box and labeled 'Documents'), Notifications, Product Catalogue, and Aggregated Order. A red arrow points to the 'Notifications, Product Catalogue, Aggregated Orders' section. Below the tabs, there are sections for 'Query History', 'Alert Management', and 'Reports'. A search bar is present with 'Status: (All)', 'Start Dates: 02/02/2016 00:00', 'End Dates: 02/03/2016 23:59', and a search input field. Below the search bar, it says 'Total entries: 46' and 'View entries per page: 25'. A table with 12 columns is displayed below, showing various document entries with columns for Direction, Trading Partner, Community Member id, Platform Date, Document Status, Document Type, Document Number, Document Date, Payment Due Date, Reference Document Number, Reference 2 Document Number, Value Total, Document Detail, and Query. The table contains 12 rows of data.

6.) **For Pharmacies:** In the case of **Aggregated Orders** the User can view and interact with Aggregated Orders. Details of how required. The Pharmacy can select Aggregated Order Lines and perform one of the following actions:

- ▶ **Redirect Order to UniPhar** for immediate response by clicking on the Redirect button – this will take immediate effect and automatically update the Accumulated Order File
- ▶ **Leave Order to Aggregate** - No action is necessary as the order will automatically update once the Suppliers EOY has been reached or exceeded
- ▶ **Cancel Order** – to do so the User must click the Cancel Button, this will take immediate effect.

7.) Once registered to the RX Marketplace Users can add and manage colleagues within their company. To do so they must go to the **Manage My Colleagues** page. New Users can be added by entering in the new Users email address, then confirming the address, then assigning a User Name and the Users Role within the Rx Marketplace. Remember to press the Submit button. The new User will be sent an email containing a link, they must click on this link and enter a password to activate their access to the Rx Marketplace. Additionally the User can be given a variety of permission within the RX Marketplace. The User can decide which colleague has access to which functions within the Rx Marketplace by simply clicking on the drop down menu (small arrow) and selecting one or more permission per user and then saving this. These Permissions can be changed and amended at anytime by a User with the assigned administration rights. A User can also be Removed or Suspended at any time.

Screen Shot of Rx Marketplace of Manage My Colleagues Page



Attention: Fields that are marked with the red asterisk * (little star) are required fields and must be filled in, otherwise the user cannot save the information on the site. Once all details have been entered press the Submit button! In the case of removing or Suspend a User be sure to press Accept.

8.) The Rx Marketplace enables Companies to manage their Users access to specific pages and functions through granting or denying **User Permissions**. Each Permission enables the User to interact with the Rx Marketplace on different levels of responsibility. In addition to the granted Permissions a User can be assigned **Roles**. A Role is a collection of permissions. **It is important to note that User Permissions supersede Role Permissions**. This means that if a User has been denied a Permission they do not have access to the action even if they have been assigned a Role which contains the Permission.

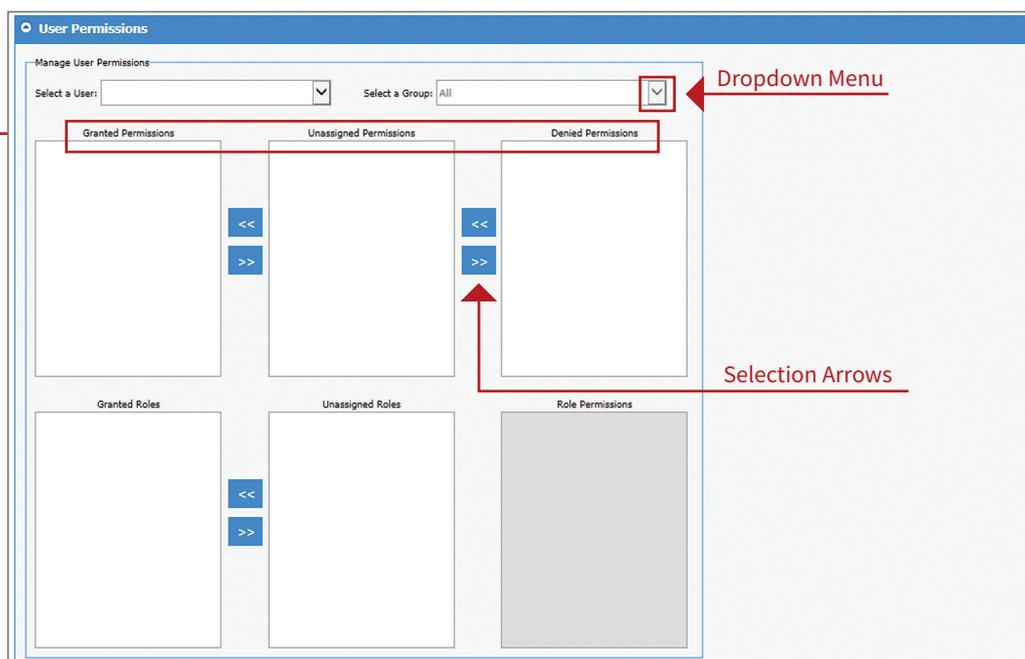
A User with **Permission to Manage My Colleagues** can access the User Permissions section by following the dropdown menu under Admin on the Navigations Panel at the top of the page and clicking on Manage My Colleagues. Once on the Manage My Colleague page the user will find User Permissions.

There are three states of Permissions:

- ▶ Granted
- ▶ Unassigned
- ▶ Denied

A User with Manage My Colleagues Permission can assign or amend Permissions per colleague. This is done by clicking on dropdown menu at the top of the page and selecting both a User and a Group in which this User is to interact with the assigned or amended Permissions. Once this is done they can select individual Permissions by clicking on them and then grant, unassign or deny them by clicking on the arrows and moving them into the Granted, Unassigned or Denied box.

Screen Shot of Rx Marketplace of User Permissions



Assigning and Unassigning Roles is done the same way, however since each Role has inherited Permissions, these will appear in the Role Permissions box once a Role has been selected. When a User clicks on a Role the assigned Permissions will automatically appear in the Role Permission box. In addition to this the inherited Permission will appear in the Granted Permissions box (in a pale grey). This way the User can decide if they want to grant a specific colleague a Role knowing what Permissions are attached to it. All changes to the Permissions and to the Roles are automatically saved through the selection and take immediate effect.

NOTE: It is also important to note that only Users who have Grantee Permission for individual Permissions are able to grant this User Permission to other colleagues.

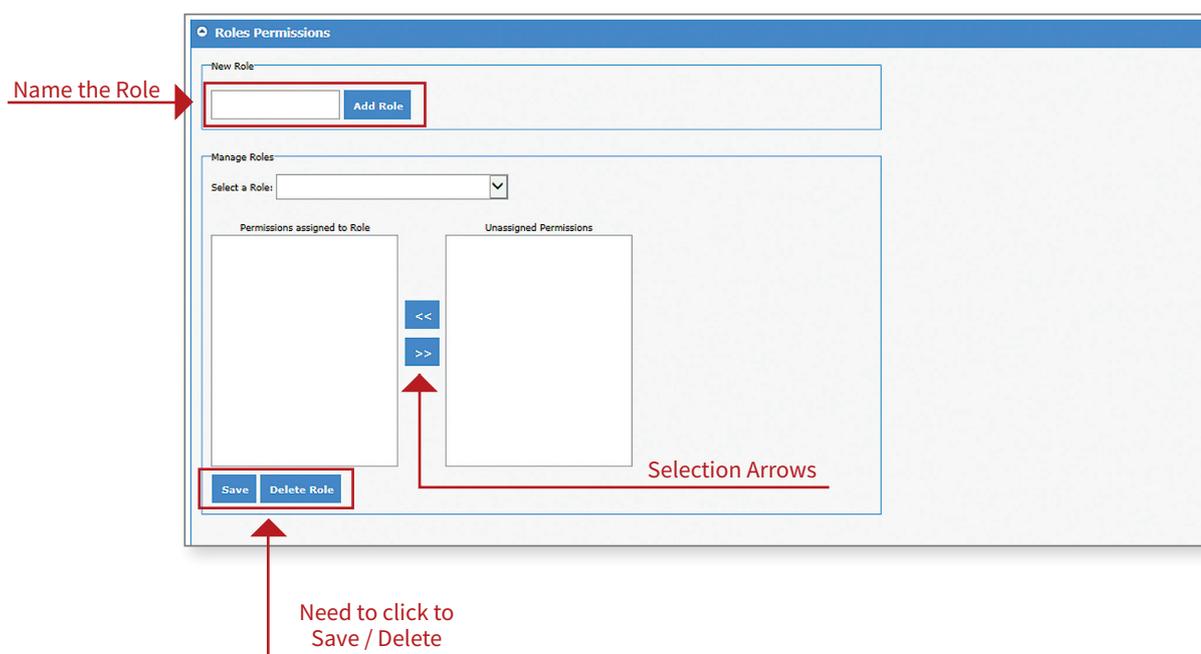
9.) In the **Role** section of the Manage My Colleague page (below the User Permissions section) the User can assign Permissions to a Role. Grouping specific Permissions into a Role allows for a quick selection process of Permissions without having to assign them each individually per User.

To create a New Role the Role must first be given a name/title by typing it into the designated field and clicking Add Role. To add Permissions to a Role select the Role by clicking on the dropdown menu in the Manage Roles section. Once selected Permissions can be assigned or unassigned by using the navigation arrows and moving the Permissions in to the desired box, when all Permissions have been assigned to the Role click Save, this ensures that the information will be saved. **It is important to remember that once a Permission has been assigned to a Role all Users who have been assigned the Role will be granted the inherited Permissions, unless specifically denied.**

A Role can be deleted at any time, to do this the User can select the Role and then press Delete Role. Once a Role has been deleted all Users who have been assigned the Role will lose all the Permissions granted through the Role.

NOTE: It is important to note that only Users who have Grantee Permission are able to assign and unassign Permissions to Roles.

Screen Shot of Rx Marketplace of Role Permissions



10.) Users can amend their company profile through the **My Company Profile** screen
By hovering over the **Admin button** on the top of every RX Marketplace page a list will appear. By selecting **My Company Profile** the User can access the information page of the company they are attached to. On this page the User (according to their privileges on the site) is able to enter the company's details.

The following are required to be able to save the information:

- ▶ Trading Name
- ▶ Legal Company Name
- ▶ VAT Number
- ▶ Address
- ▶ Country
- ▶ Account Code

Attention: Fields that are marked with the red asterisk * (little star) are required fields and must be filled in, otherwise the user cannot save the information on the site. Once all details have been entered in to the profile remember to press the Save button!

NOTE: Pharmacies do not have access to the My Company Profile unless they are also Suppliers.

Screen Shot of Rx Marketplace of Company Profile Page

Required Fields

Company Details	
Trading Name: *	UnipharMP
Legal Company Name: *	Uniphar
VAT Number: *	GB999999999999
Phone Number	015648994354533
Service Description:	Trade
Country of Registration:	United Kingdom
CRO Number:	2223
ERP Package:	602
Accounts Package:	162
EPOS System:	1112
Address Line 1: *	Parnell Street2
Address Line 2:	Dublin 2
Address Line 3:	Dublin12
City:	Dublin12
Country*	Ireland
Postcode:	0454
Account Code: *	UN1000

Bank Details	
IBAN:	3423232322
BIC / Swift code:	345345345

E-invoicing Contact Details	
Name:	Marks123
Telephone Number:	0585664411245
Email Address:	A2ug1@fog.gog13

11.) Users can amend their profile through the **My Profile** page.

On every page of the Rx Marketplace the User will find the menu option called **My Profile**. By clicking on this button the user will be able to access their personal profile page. Each individual User has their own unique Login and Password designated just to them. They can manage their password and reset it on the My Profile page. However to create a new password the User must enter the old password to activate the new password. To create a new Password the User must fill in the Security Details.

Screen Shot *personl Details on My Profile Page*

The screenshot shows a user profile page with three main sections: 'Personal Details', 'Security Details', and 'Confirm Existing Password'. The 'Personal Details' section contains fields for 'Your Email' (bernard.mccloskey@celtrino.com), 'Your Name' (Bernard), 'Phone Number' (4534534534523), and 'Language Preference' (English). The 'Security Details' section contains fields for 'New Password', 'Confirm Password', 'Security Question' (Favourite City), and 'Security Answer' (Dublin). The 'Confirm Existing Password' section contains an 'Existing Password' field and a 'Submit' button. Red boxes highlight the 'New Password', 'Confirm Password', 'Existing Password' fields, and the 'Security Question' dropdown. A red arrow labeled 'Required Fields' points to these highlighted areas.

- 1.) First type in the new password Attention passwords are ALWAYS case sensitive,
- 2.) Then re-enter the password a second time, the passwords must match
- 3.) Now the User must select a security question (there are several options available - if the User clicks on the little arrow pointing downwards the options will appear)
- 4.) and type in the answer to the chosen security question in the space available (Security Answer).
- 5.) Finally the User must enter the old, existing, password into the space made available (Confirm Existing password) and press submit.

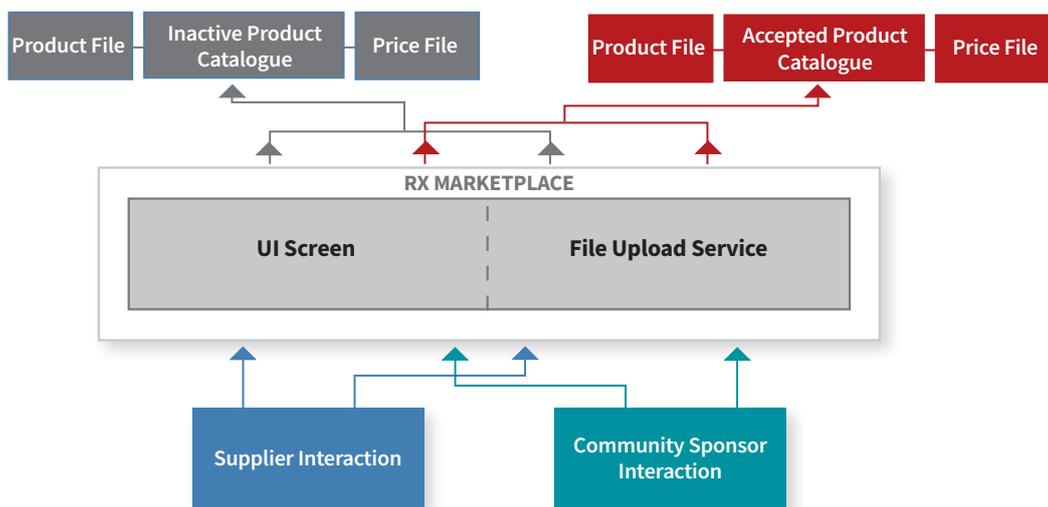
NOTE: do not write down passwords – they are private and should only be known to the user.

Now the User has a new Password. This password does not need to be changed however for security reasons it may be a good idea to change your personal password periodically.

12.) The Supplier can add products to their **Supplier Product Catalogue** at any time, however it is important to note that the Supplier Product Catalogue is not the same as the Rx Marketplace Catalogue, and that only accepted products within the Rx Marketplace Catalogue are available for selection by the Supplier Order Service. (See *diagram 10.0 on page 25.*)

The Rx Marketplace Catalogue unifies all the accepted product and price files within the Trading Relationship into one accepted Rx Marketplace Catalogue

(Diagram 7.0)



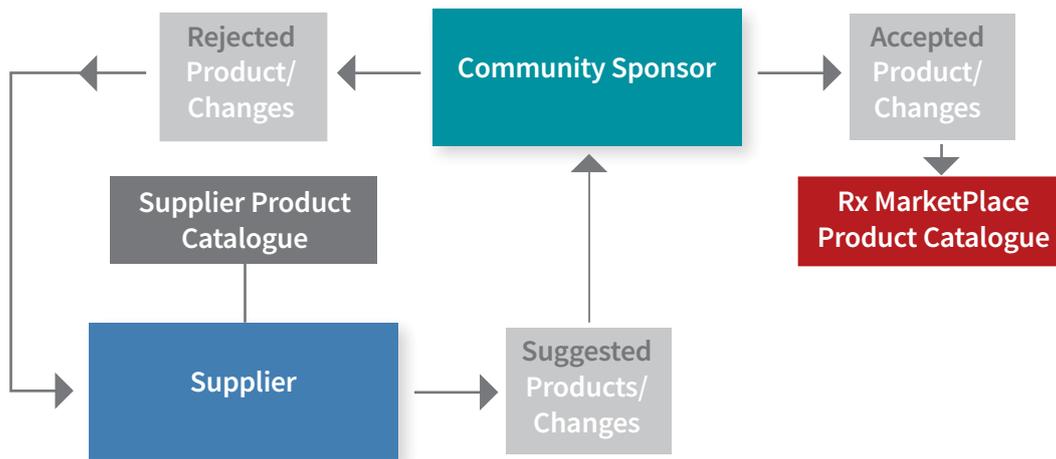
For a Product to be included to the Rx Marketplace Catalogue the Supplier must suggest these Products to the Community Sponsor, they will in turn either accept the Product or reject it. (See File Upload Service Diagram 11.0 on page 26 for more information).

NOTE: The Rx Community Sponsor gives all accepted Products a Status:

- ▶ **LISTED:** the Product is available for purchasing
- ▶ **ACTIVE:** the Product is available for purchasing in the future (the timeframe in which the product is available is predefined by the Supplier)
- ▶ **DELISTED:** the timeframe in which the Product was available for purchasing has expired. If a Supplier wished to still offer the Product for purchasing they must amend the timeframe, the Product status will then change to either Listed or Active, depending on the predefined timeframe the Supplier has selected.
- ▶ **DELETED:** If a Supplier no longer wished to offer a Product they can Delete the Product File and the associated Price File. This takes immediate effect.
- ▶ **INACTIVE:** If a Product is given the Status Inactive this means that while the Supplier is offering a Product for purchasing the Rx Marketplace Trading Partner has decided to NOT order this specific Product from this specific Supplier. The offering Supplier sees this Product as accepted.

NOTE: All added Products will be either accepted or rejected by the Rx Marketplace System. Once a Product has been accepted it will be given its Status. If a Product is rejected the Supplier will receive a rejection notification. The Supplier can resubmit the Product to the Rx Marketplace as often as they like.

Process for suggesting new products and for changing existing Products (Diagram 8.0)



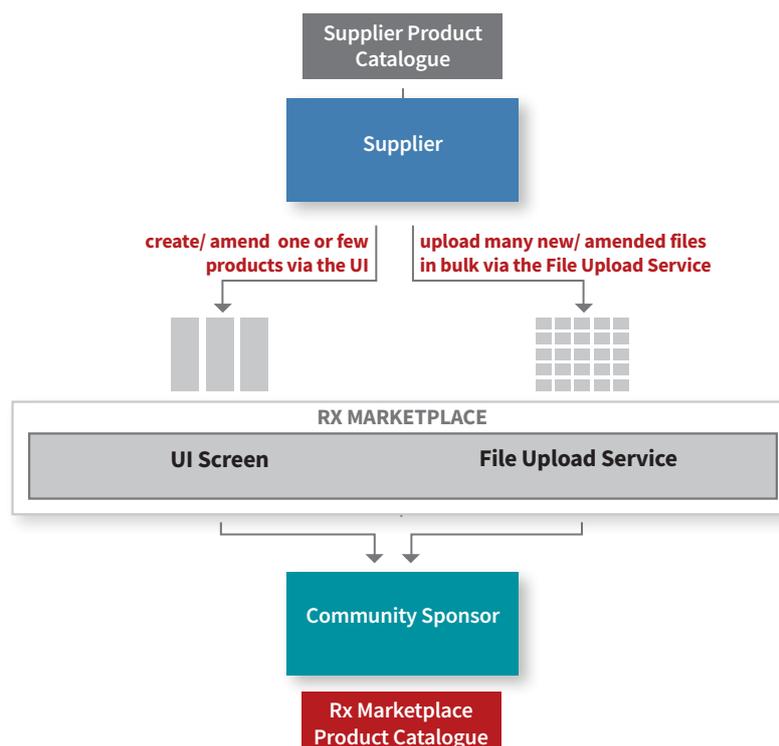
13.) There are two methods to add or amend Products on the Rx Marketplace.

▶ The Supplier can upload files via the **File Upload Service (Rx Marketplace User Interface)**. To add Products and the associated Price File to the Supplier Product Catalogue via the File Upload Service the Supplier must fill in the provided Comma Separated Value (CSV) file. This is provided as a template file in form of an Excel Spread Sheet.

▶ Or the Supplier can add or amend Products through the **UI Page** directly.

NOTE: If a Supplier wants to add or change Products in bulk it is recommended they do this via the File Upload Service. If a Supplier is only adding or changing one, or a few, Products using the UI page is recommended. However both methods work regardless of the amount of Products added or changed.

Procedure for creating/ amending files through the UI or uploading files in bulk via the File Upload Service (Diagram 9.0)



14.) Suppliers can amend Products and Pricing for existing Supplier Products at any time. To do this, the Supplier uses the provided template and amends the sections they wish to change. This means the Supplier does not need to fill in all the information associated with an already Accepted Product but can limit it to just the new or changed information, i.e. price or timeframe.

NOTE: All changes to a Product will be either accepted or rejected by the Rx Marketplace System. Once a change has been accepted the changes will be added to the Product at a predefined scheduled time. If a change is rejected the Supplier will receive a rejection notification. The Supplier can then amend the change to the Product and resubmit it to the Rx Marketplace. The Supplier can resubmit as often as they like.

For more information go to see File Upload Service Diagram 10.0 on page 25.

15.) The Supplier receives PIMS Orders from the Rx Marketplace via the PIMS Multi-Client Service (See diagram 2.0 on page 8). **The Supplier must respond immediately** to the PIMS Orders with a Simple Order Response confirming receipt and acceptance of the PIMS Order.

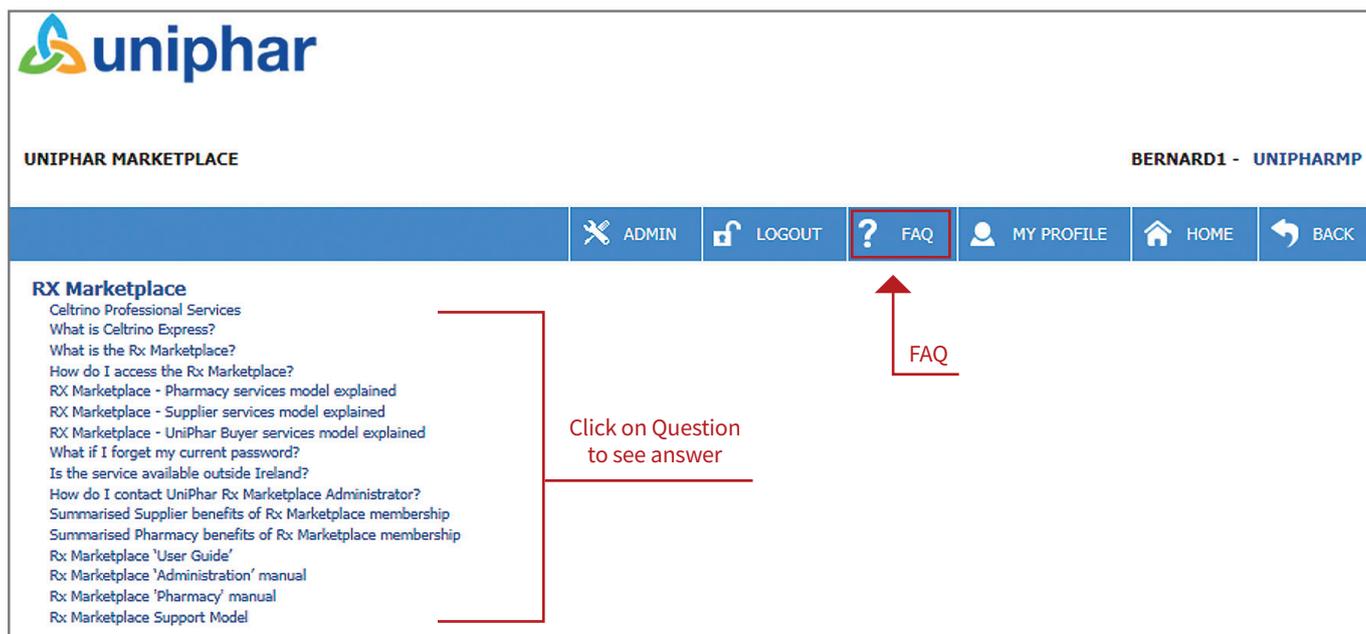
NOTE: A Supplier must host a PIMS Server in Order to be able to exchange messages with the Rx Marketplace PIMS Multi-Client Service. In addition to this the Supplier must host a suitable broadband connection to be able to connect with the Rx Marketplace. The Supplier maintains both the Supplier PIMS Server and the Supplier broadband connection and any support needed is external to the Rx Marketplace.

16.) The Supplier PIMS Service must also respond to the PIMS Order with a PIMS Order Response confirming fulfilment capability. Each received Order must be answered with a PIMS Order Response. The Supplier must respond within a predefined timeframe. The reason for this is that a **Timer Service is activated** once the PIMS Order enters the Rx Marketplace. If a Supplier does not respond to a PIMS Order within the set timeframe the RX Marketplace will assume non-fulfilment and will generate a cancellation Order Response. Once a cancellation Order Response is generated the Order is redirected back to the Supplier Order Service for placement with another suitable Supplier.

17.) The User may click the **FAQ** menu option to access **Frequently Asked Questions**, this page will also give them access to the Online Information Manuals. While using any new website most users have a few questions. To help answer these the User can find the Frequently Asked Questions (FAQ) menu option on the Navigation Panel at the top of every page. If the User clicks on this menu option the link will bring them to the FAQ page and a list of questions will appear. By clicking on the question the User can navigate the list without having to scroll down through the page.

If additional questions arise the User can contact the Rx Marketplace Administrator, the contact details are listed on the FAQ page.

Screen Shot of Rx Marketplace of FAQ Page



18.) All Companies should familiarise themselves with the content of the **Disclaimer link**. At the bottom of every page of the Rx Marketplace the User will find an active Disclaimer link. By clicking on the link the Pharmacy will be able to access Celtrino's Terms and Conditions of use of the Rx Marketplace. This is standard practice and ensures that all parties involved in the Rx Marketplace are made aware of their rights and responsibilities.

Screen Shot of Rx Marketplace of the Disclaimer



Disclaimer Link

Indirect Pharmacy interaction with the Rx Marketplace

- 1.) The Community Sponsor approves and confirms the access to the Rx Marketplace. Once onboarding is complete the Pharmacy is set up and can commence to send PIMS Orders to the Rx Marketplace
- 2.) The Community Sponsor Uniphar organises the onboarding process and is involved in the Pharmacy setup.
- 3.) Pharmacy creates PIMS Orders on their own in-store Pharmacy Dispensing System and then sends the order to the Rx Marketplace via a broadband connection
- 4.) The PIMS Order arrives on Rx Marketplace, from here on the process is automated.
- 5.) The RX Marketplace sends a Simple Order Response to the Pharmacy to let the Pharmacy know the Order has been received.
- 6.) The RX Marketplace matches the Orders (per product) with the Lowest Cost Supplier and automatically sends the Orders on to the Suppliers
- 7.) The Suppliers respond with an Order Response confirming fulfilment of the Order.
- 8.) Orders are processed by selecting the Lowest Cost Supplier for each ordered product. This means that one Order may result in several Order Responses.
- 9.) If Order lines are Aggregated, the Pharmacy is notified within the Order Response. An Aggregated Order means that the Order has not reached or exceeded the Suppliers Minimum Order Value. *For more information see page 25.*
- 10.) The Pharmacy can generate as many Orders as needed throughout the day.

Service Definition - Order Response Service

The Order Response Service monitors all Supplier initiated Order Response messages exchanged between the Supplier PIMS servers and the Rx Marketplace PIMS Multi-Client Service. Order Response messages are transformed for further processing in the Rx Marketplace. This Supplier Order Response is routed to the Order Response Service, where an action is assigned based on the Order Response fulfilment status. There are four possible outcomes based on the order response received:

- ▶ **Fulfilment** : the Supplier is confirming that all of the order lines can be completed.
- ▶ **Partial Fulfilment**: this response indicates that the Supplier has insufficient stock available and cannot complete fulfilment.
- ▶ **Unfulfilled**: the Supplier is confirming their inability to supply any order lines.
- ▶ **Aggregated**: this response indicates that the current order value does not meet or exceed the Economic Order Value (EOV) set by that specific supplier for economic delivery.

Actions associated with each response are described below:

Fulfilled Order Response:

The Order Response Service will create a PIMS Compliant Order Response. This response will then automatically be sent to the PIMS Multi-Client Service, here it is moved to the PIMS Marketplace Gateway and made available for download by the Pharmacy PIMS Client System.

Partial Fulfilment Order Response:

When a line is partially fulfilled we generate both a response to be sent to the pharmacy with the fulfilled quantity and a new approved order containing the unfulfilled quantity.

Unfulfilled Order Response:

The Order Response Service will generate an Approved Retailer Order and send it back to the Supplier Order Service, here the process of finding the next Lowest Cost Supplier continues, this ensures that the Pharmacy always receives products from the Lowest Cost Supplier with available stock.

Aggregated Order Response:

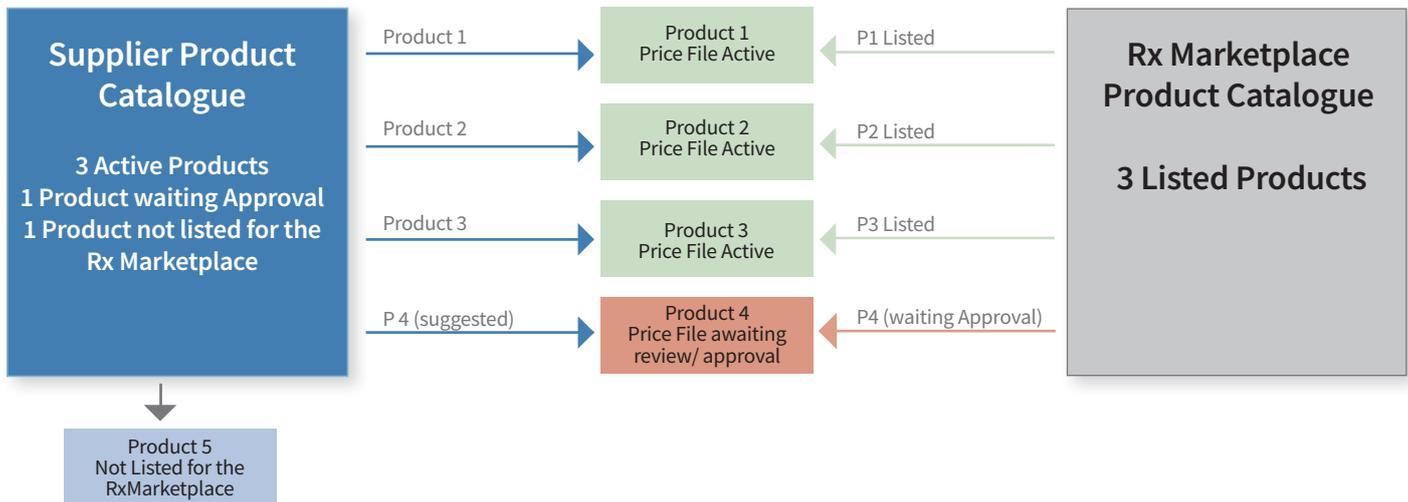
The Order Response Service will create a PIMS Compliant Order Response and send this to the PIMS Multi-Client Service, where it is then moved to the PIMS Marketplace server for automatic download by the Pharmacy PIMS Client System. Additionally the Order Response Service will update the saved accumulated orders (Rx Marketplace internal document type) with the relevant aggregated order line details. Pharmacies can login to the Rx Marketplace and manually choose between one of three configured options for Aggregated Orders.

- ▶ **Option 1** – They can choose to redirect the order line to UniPhar, effective immediately and update saved accumulated order file.
- ▶ **Option 2** – Leave order lines aggregate with the same Supplier until they meet or exceed the Suppliers EOV. Once this occurs the saved accumulated order file will be updated and the order will be fulfilled.
- ▶ **Option 3** – Cancel the aggregated order lines, this comes into effect immediately, and updates the saved accumulated order file.

Service Definition - Product Catalogue / Management

The Rx Marketplace Product Catalogue consists of a combination of both product files and associated price files. It is important to draw a distinction between a Supplier Product Catalogue and the Rx Marketplace Product Catalogue. Suppliers can add and amend products in their own respective Product Catalogue, however only products that are accepted and listed in the UniPhar Rx Marketplace are available for selection by the Supplier Order Service.

(Diagram 10.0)



A Supplier can have as many Products as they chose in their Product Catalogue. However if they want to activate products in the Rx Marketplace Product Catalogue the Supplier must send both a Product File and an associated Price File to the Community Sponsor for approval. The Community Sponsor will list all approved Product Files and the associated Price Files for all approved products. If a product is rejected the Community Sponsor will send a Rejection Notification. The Supplier is free to resubmit the Product at anytime.

Sub Service - Product & Price Files

Products are only listed and available for order on the Rx Marketplace once an associated price files exists which has been approved by the Community Sponsor for listing on the Rx Marketplace. The Suppliers Product Code is linked to the Rx Marketplace Product Code within these associated price files i.e. Trading Relationship price files. Status controls what can and cannot be ordered on the Rx Marketplace. Products can and will exist on the Marketplace which are not available for order depending upon the *Status* within the Trading Relationship price file for a particular product i.e. *Delisted* products and *Active* products exist, but are not available for order, while Trading Relationship files, with the status *Listed* are available for order.

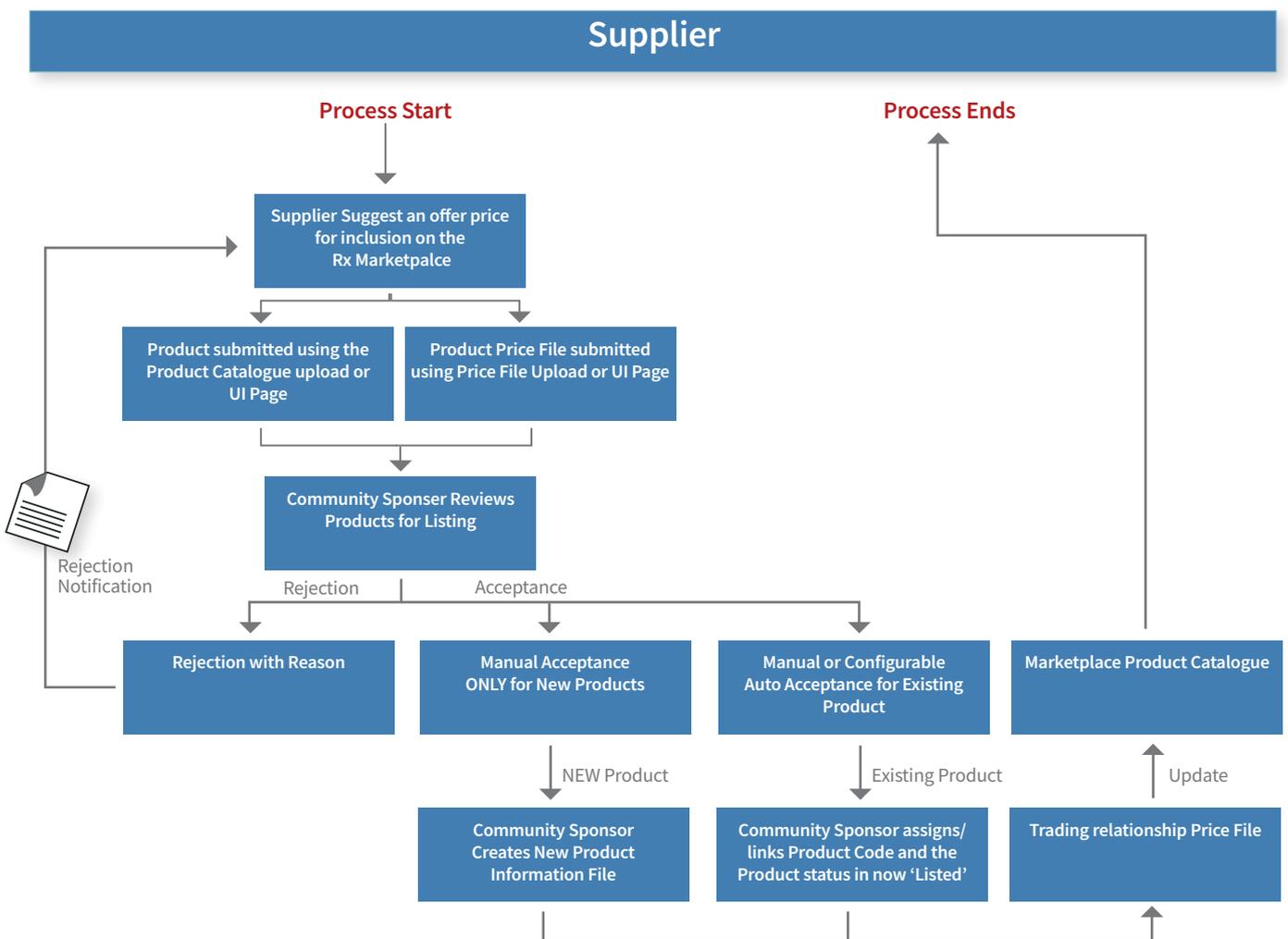
NOTE: A Trading relationship must be established in order for two (or multiple) parties to interact with each other on the Rx Marketplace. In essence each Product listed in the Rx Marketplace Catalogue contains three components: Product Information, Price File and Trading Relationship Status.

Sub Service - File Upload Service (Product & Price Files)

Suppliers can add new products to their respective Product Catalogue by the means of a Product Information File Upload Service. Suppliers can also add and amend existing products through a Supplier User Interface directly available on the Rx Marketplace. They can also upload Price Files, which contain product pricing offer.

These same services exist for the Community Sponsor. The Community Sponsor needs to approve all additions and modifications to submitted price files. Any changes to the pricing will be applied the next day. **The action of delisting products takes effect immediately.** Community Sponsor can upload pricing which will be applied to all active products in a bulk action.

File Upload Service (Diagram 11.0)

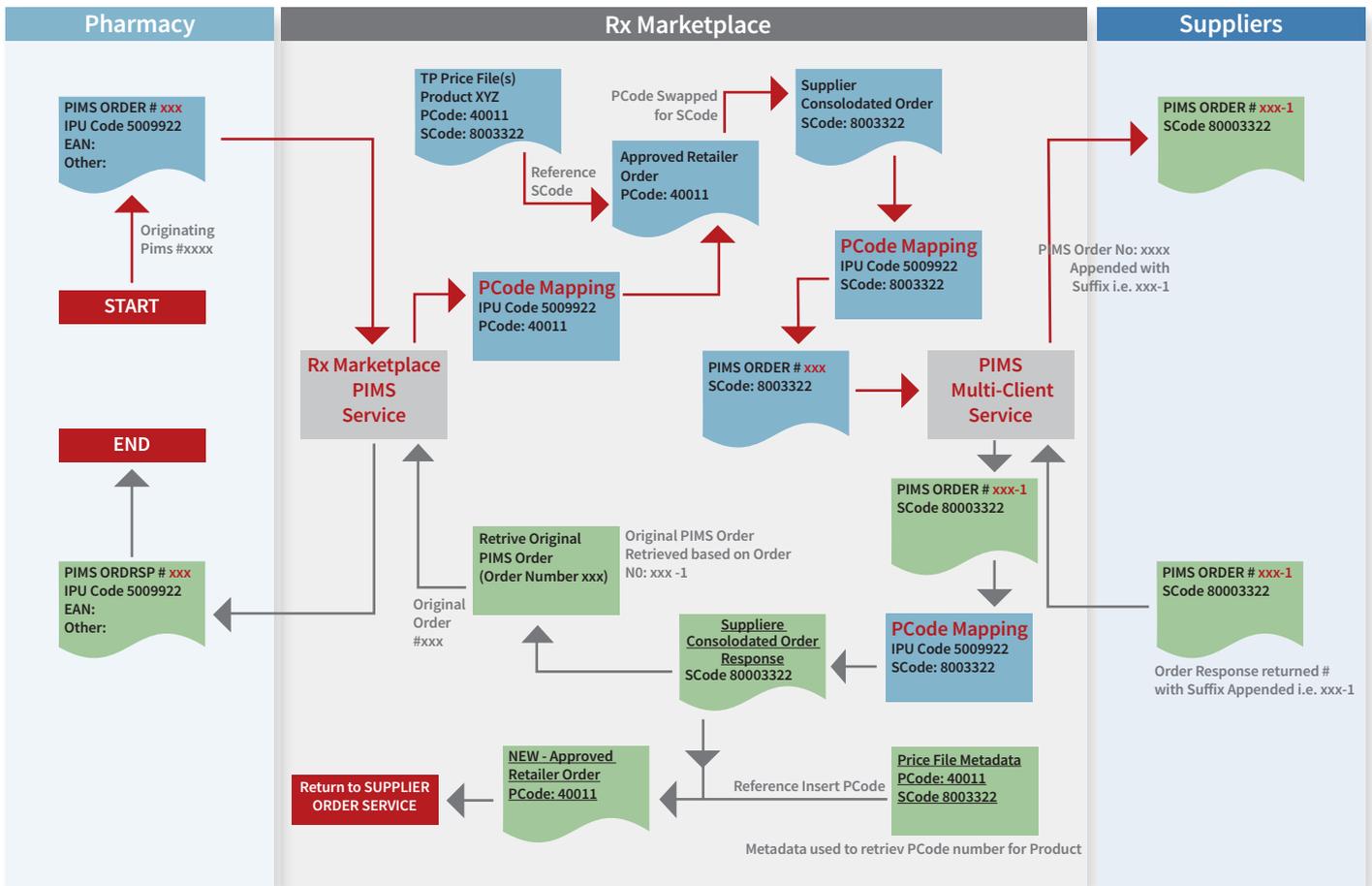


The Supplier can suggest any Product File and associated Price File by uploading these files to the Rx Marketplace. Here the Community Sponsor evaluates the Product and either sends a Rejection Notification back to the Supplier or the Community Sponsor can accept the Product into the Rx Marketplace Catalogue. If the Product is new then the Community Sponsor will create a new Product Information File and activates the Product for listing, if it is an existing Product the Community Sponsor will link the Product to the associated product codes and makes the product available for purchasing on the Rx Marketplace.

Sub Service - Rx Marketplace Product Code Mapping Overview

Product Code Mappings are an integral aspect of the Rx Marketplace. This allows the Rx Marketplace Product Code (PCode) to be independent and mapped to an associated incoming order product and an associated Supplier Product Code (SCode). A Retailer may use an IPU, EAN, or other product identifiers, the very same product may be identified differently by the Supplier however these two separate, independent codes are linked through the Rx Marketplace Code mapping process. Please reference *diagram (12.0)* below, for additional detail of how this process functions.

PCode Mapping Process Flow Diagram 12.0



Sub Service - Rx Marketplace UI Function

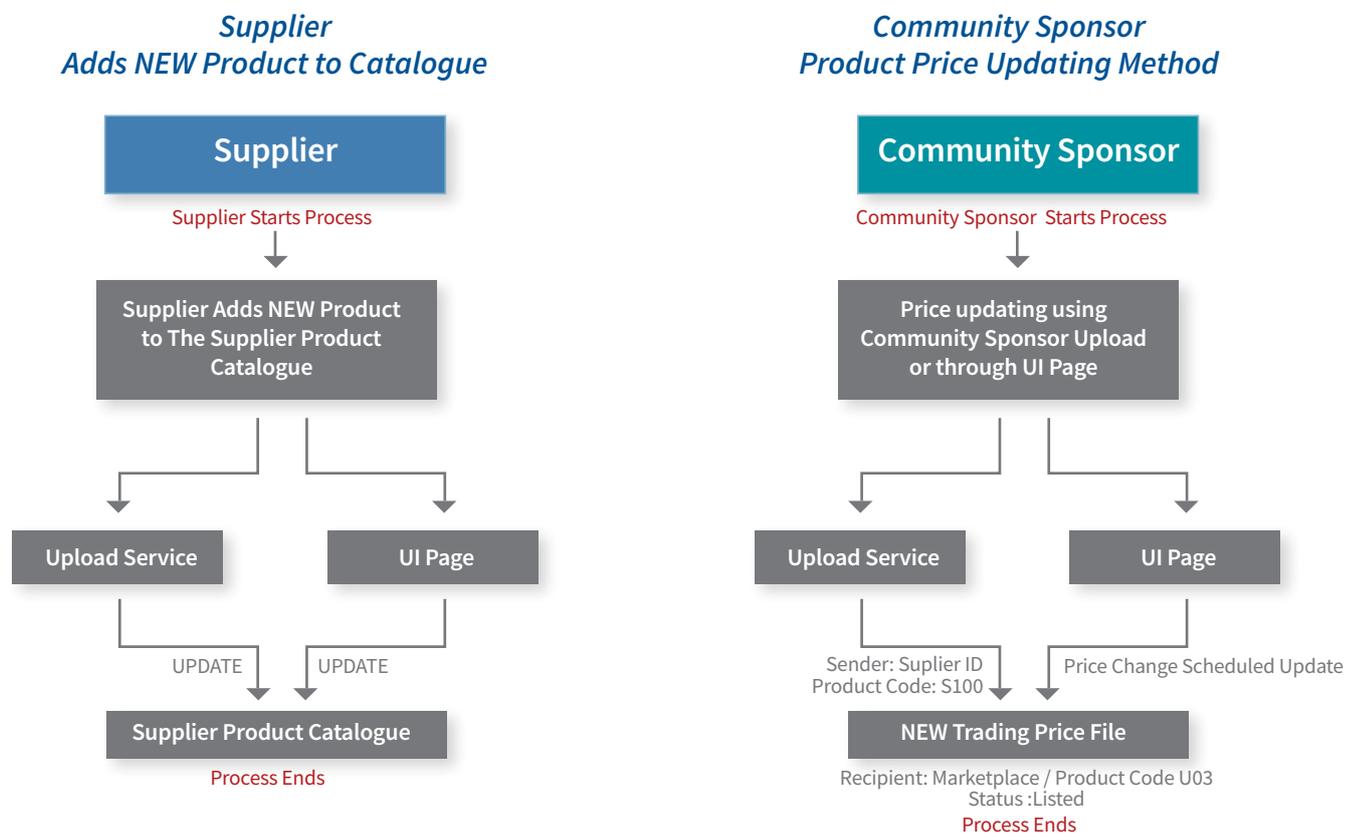
Suppliers can add new products to their respective Product Catalogue by means of a Screen User Interface. This allows the Supplier to add new products or make amendments to existing products.

Note: These changes do not impact the current Trading Relationship Price File but will result in the generation of a new price file with a status of Buyer Review if a price is changed. The Community Sponsor also has access to a User Interface Page for adding, linking, amending and delisting products and pricing.

The functionality provided to the Pharmacy/Retailer through the Rx Marketplace screen UI is restricted to reviewing Documents (Orders, Order Responses, Alerts) in which they are either the Sender or the Recipient. and actions related to Aggregated orders. For Aggregated orders the Pharmacy can:

- ▶ Redirect directly to Rx Marketplace Community Sponsor
- ▶ Leave the Aggregated Order with the Supplier until the EOV has been reached or exceeded
- ▶ Cancel the associated aggregated order lines

(Diagram 13.0)



Sub Service - Product Maintenance Service

Every morning the Product Maintenance Service is initiated at a predefined scheduled time. The service looks at future pricing changes which need to be applied i.e. price file changes for future pricing, product listing (start/end dates), promotions (start/end dates) and applies these changes. Existing files are assigned the status superseded and the updated file is then marked as active. If a product has no changes pending then the current active trading relationship price file remains as-is.

Sub Service - Auditing

Changes to the product catalogue are captured through the creation of a new file. A Buyer may select a specific Product using the screen UI and select an option to review recent changes. This will produce a listing of the current product attributes and also highlight a list of changes to any attribute field going back 30 days. This function allows for transparency within the system.

Service Definition - PIMS Multi-Client Server

The PIMS Multi-Client Service (MCS) provides a PIMS message compliant mechanism for interaction with Marketplace Suppliers. All Suppliers are required to host a PIMS compliant server. The Supplier server connects directly to the Marketplace PIMS Multi-Client Service for exchange of orders, Simple Order Response and Order Response message types. In the PIMS Client/Server relationship, the Server contains the files and the Client pushes files to the server and/or pulls files from the Server.

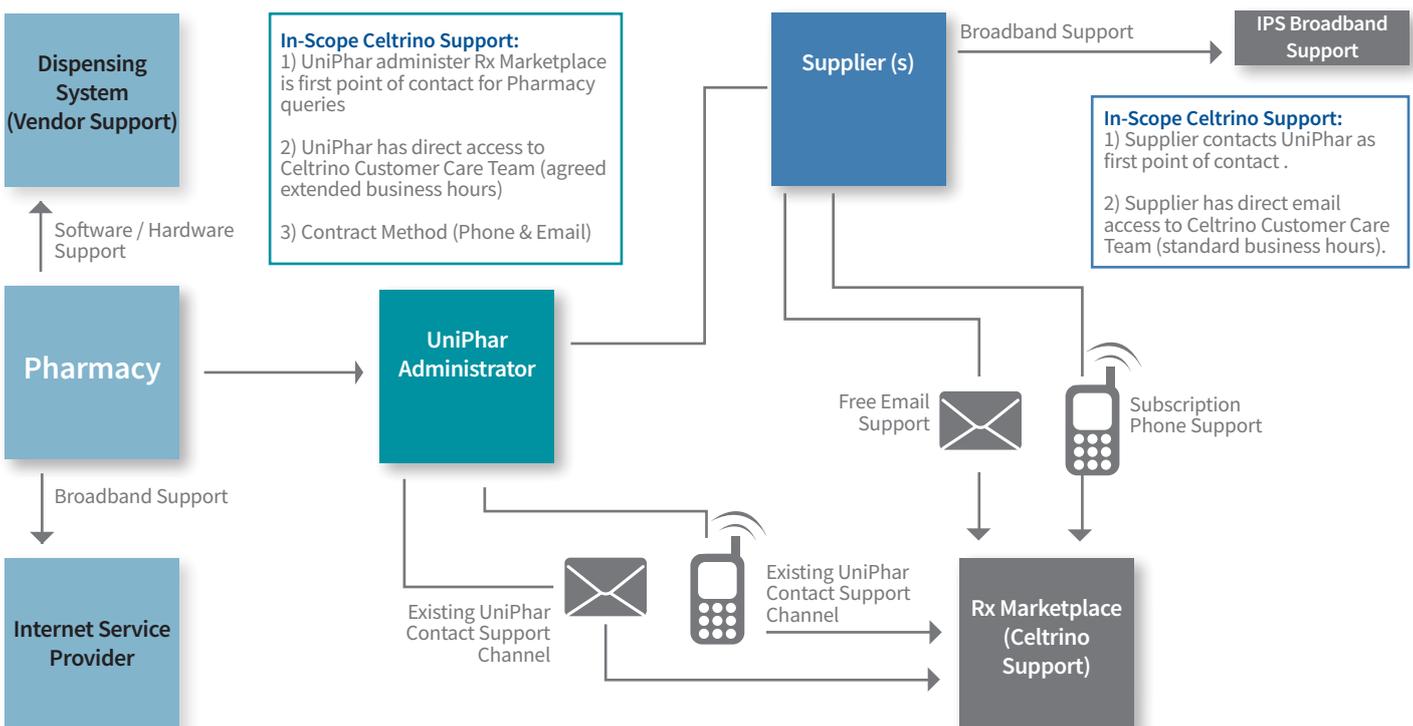
Service Definition - PIMS Marketplace Server Service

The PIMS Marketplace Server acts as the gateway between the Pharmacy and the Rx Marketplace. Pharmacy Orders are received through this gateway and Simple Order Response and Order Responses are made available for Pharmacy download

Sub Service - Proposed Support Model

Diagram 14.0 outlines the support model proposed for the Rx Marketplace for UniPhar Buyer, Suppliers and Pharmacies. While the Marketplace has been designed to be autonomous and as fully automated as possible, there will be times when support is required and so the inclusion of a support model is an integral part of the Rx Marketplace and Celtrino Service provision.

Support Model (Diagram 14.0)



Optimum Supplier / Product Determination Rules

The approved User Requirements Specification for the Rx Marketplace Project describes the initially configured rules for Optimum Product Selection. The selection of a Supplier is based on the Lowest Cost Supplier for each ordered Product. Once a Pharmacy sends a PIMS Order to the Rx Marketplace the order is processed on Header Level and Line Level (see Service Definition - Supplier Order Service on page 11). If a selected Lowest Cost Supplier cannot fulfil the order, due to lack of stock, the request goes back to the Supplier Order Service and a new Supplier is selected based on the next lowest cost for the product. This process continues until the Order is fulfilled or cannot be fulfilled by any Supplier.

If an Order can only be partially fulfilled or cannot be fulfilled at all the Pharmacy will be notified about this via the Order Response Service (see Service Definition - Order Response Service on page 25).

Service Definition - BI Reporting

The BI Reporting Service will be used to provide line level reporting of orders and associated order response status. It is responsible for processing the underlying data captured during all processes within the Rx Marketplace. This service will also be used internally by Celtrino to monitor processing within the Rx Marketplace. BI Reports can be customised based upon specific individual queries.

NOTE: This service is not available as standard.

Glossary of Terminology Usage

Aggregated Orders – This means that the order value does not meet or exceed the Economic Order Value (EOV) set by the specific supplier for economic delivery

BI - Business Intelligence is the analysis of all data collected within the system

Business Rules: Business Rules refer to predefined, configurable parameters, which allow for a consistent and structured process structure within the Marketplace

EAN- European Article Number, barcode standard

EOV - Economical Order Value, the predefined (monetary) value any ordered items must fulfil to make the order delivery viable for the supplier

Gateway: a device used to connect two different network systems, often through the connection to the Internet.

IPU- Irish Pharmacy Union

Lowest Cost Supplier – every ordered Product is matched with the Lowest Cost Supplier from the Rx Marketplace Catalogue. This means that the Rx Marketplace identifies the most cost efficient Supplier who can fulfil the order, thus guaranteeing the lowest cost for the Pharmacy.

PCode – the specific **Trading Partners Product Code**, given to a product within the system

PIMS – Pharmacy Internet Messaging System - a defined protocol used for interaction between pharmacy Rx systems and third party / supplier systems using the product ordering and response message set.

RX Marketplace – this is the virtual space in which all trading and communication between the individual users occurs.

Rx Marketplace Product Catalogue - the Rx Marketplace Catalogue is the term used to describe the assemblage of product and price files listed.

SCode – Supplier Product Code, this is the code used by Suppliers to identify their product. This code gets mapped to the Rx Marketplace Common Product Code (PCode)

Saved Accumulated Order - this is an Rx Marketplace internal document type linked to Aggregated Orders.

Trading Relationship - this term describes the business relationship between two participants in a trading partnership.

UI – User Interface the means by which the user and a computer system interact, in particular the use of input devices and software.

URL – Uniform Resource Locator, is the address to a resource on the internet . It has two main components the protocol identifier (http) and the resource name (example.com)

URS - User Requirements Specification documentation of the required usage and ability of the software in question

Document Revision History

This section contains a full revision history covering the document approval life cycle states (i.e. Initial revision through to obsolescence (where applicable)

Author	Description	Document Date	Revision Number
David Groves	Initial Issuance	26th August 2015	Rev 0.1
David Groves	Updated post Bernard McCloskey Review - For Release	23rd November 2015	Rev 1.0
David Groves	Formatting Updates	06th January 2016	Rev 1.1

Reference Documentation

This section contains a reference to all relevant UniPhar Rx Marketplace project documentation used in compiling the Rx Marketplace Information Manual

Author	Document Type /Description	Revision Details	Document Status
Celtrino	Celtrino Proposal to UniPhar Group to Build an RX Marketplace	13th Aug 2015 Version 3.0	Approved
Celtrino	UniPhar Rx Marketplace User Requirements Specification	26th August 2015 Version 1.0	Approved 7th Oct 2015