

Rx Marketplace

Information Manual

Pharmacies

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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Table of Contents

The Rx Marketplace	4
Document Purpose	4
Benefits for the Individual Parties of the Rx Marketplace	4
Rx Marketplace Overview	5
PIMS Ordering and Response Process	6
Service Definition - Rx Marketplace PIMS Server	7
Service Definition -Supplier Order Service	7
Direct Pharmacy Interaction with the Rx Marketplace	8
Indirect Pharmacy interaction with the Rx Marketplace	15
Service Definition - Order Response Service	16
Service Definition - PIMS Marketplace Server Service	17
Sub Service - Proposed Support Model	17
Optimum Supplier / Product Determination Rules	18
Service Definition - BI Reporting	18
Glossary of Terminology Usage	19
Document Revision History	20
Reference Documentation	20

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

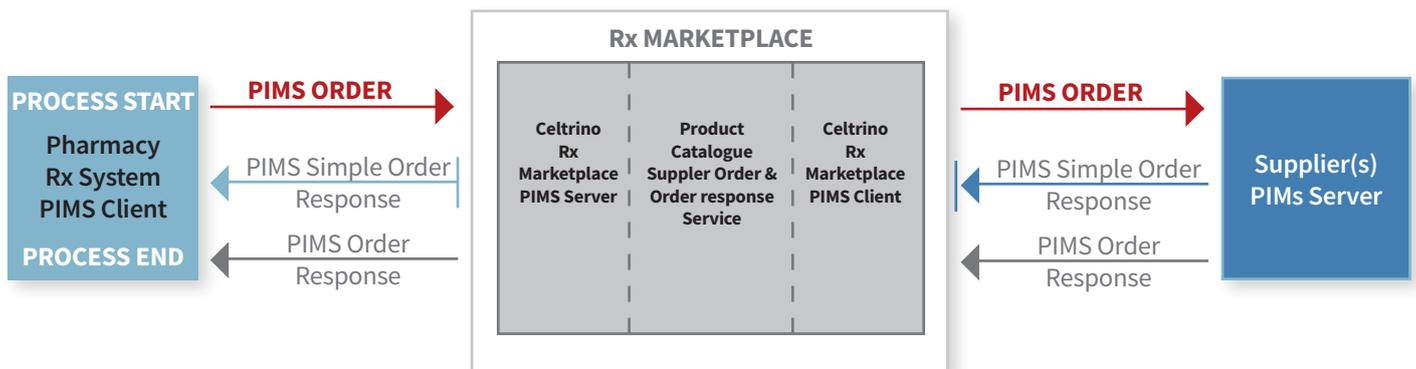
- ✓ Access to a large, self-contained online marketplace
- ✓ Wider reach within the industry
- ✓ Optimised closed loop ordering process

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 however this happens behind the scenes. Diagram (1.0) below provides a simplified graphical representation of the process.

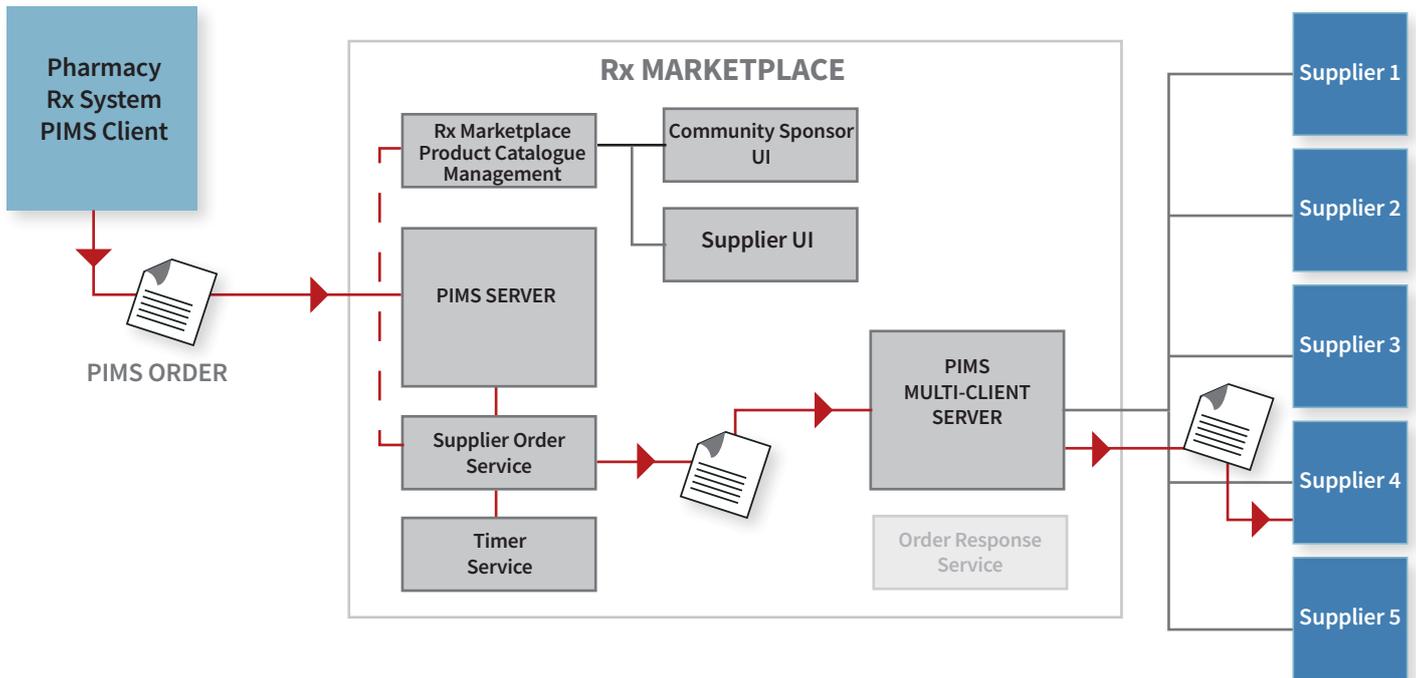
Rx Marketplace Overview (Diagram 1.0)



PIMS Ordering and Response Process

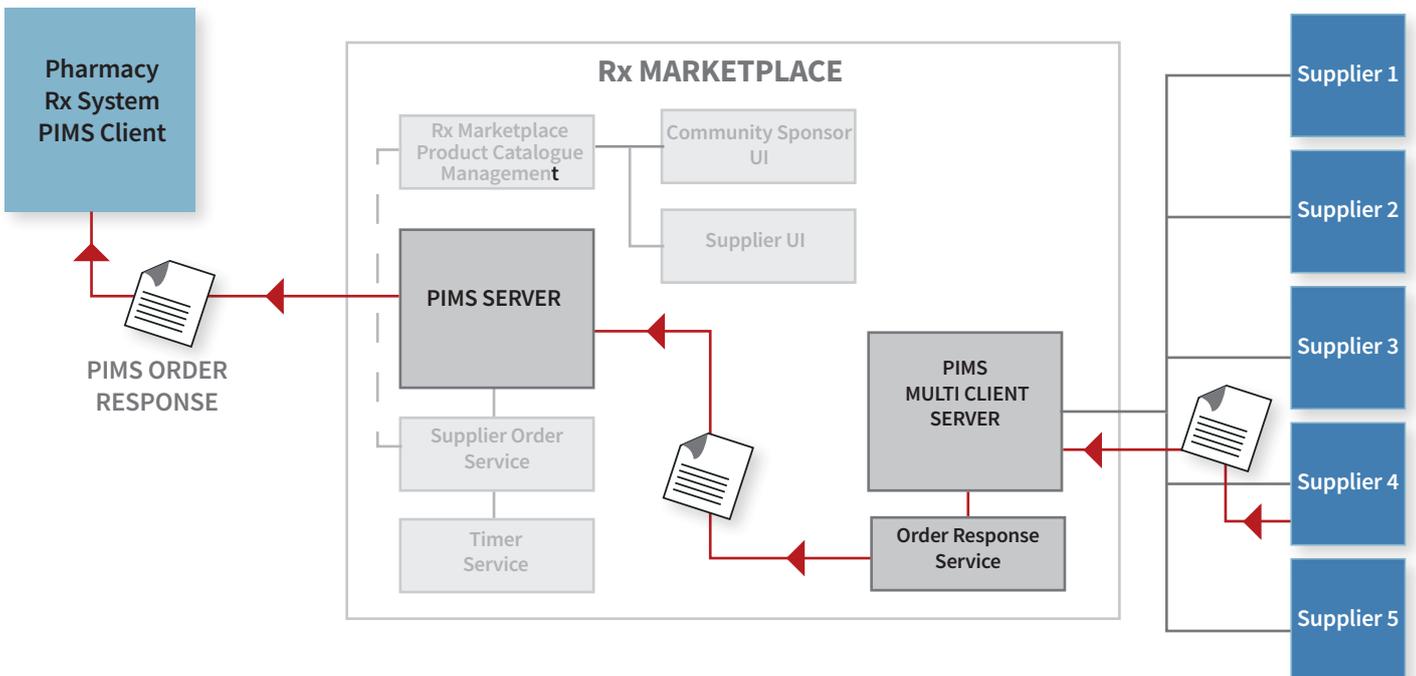
The following two diagrams provides a clear understanding how the individual functional blocks interact with each other

The PIMS Ordering Process (Diagram 2.0)



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 2.1)

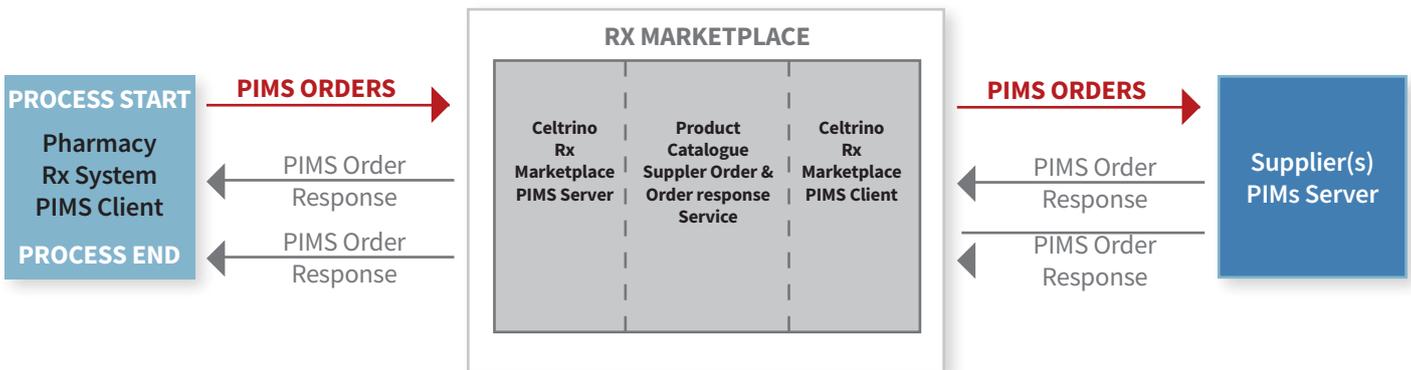


Once the Lowest Cost Supplier accepts the order for fulfilment a PIMS Order Response is sent to the PIMS Multi-Client Server. This Order Response is processed and sent on to the PIMS Server and then made available for the originating Pharmacy to download.

Service Definition - Rx Marketplace 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 acknowledgment 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 below*).

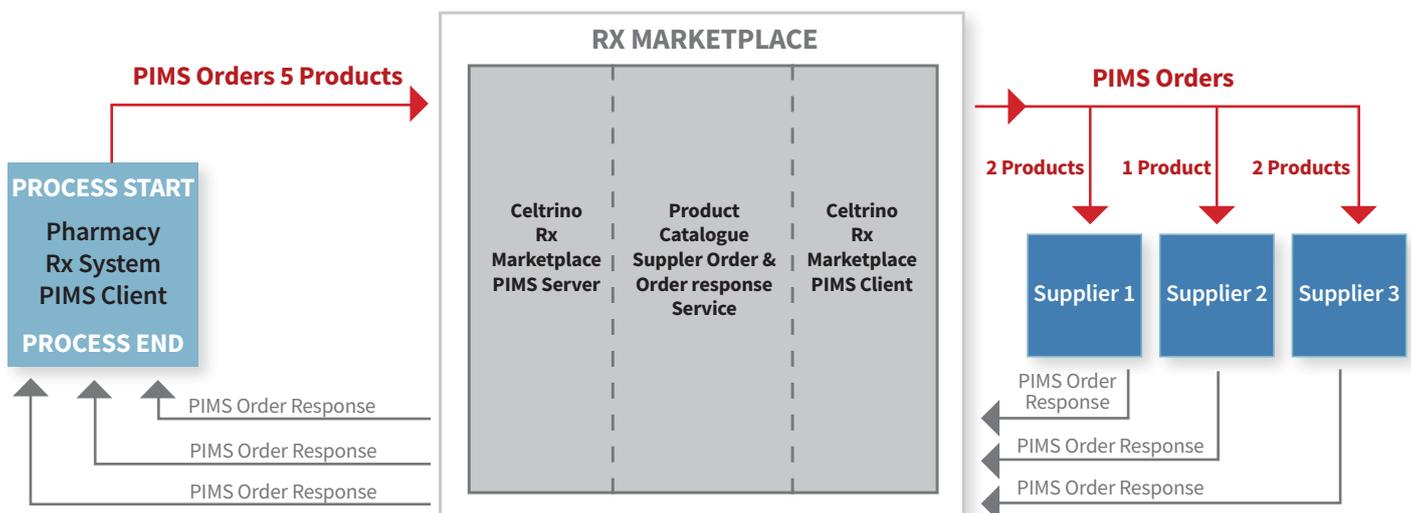
PIMS Server (Diagram 3.0)



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.

Supplier Order Service (Diagram 4.0)



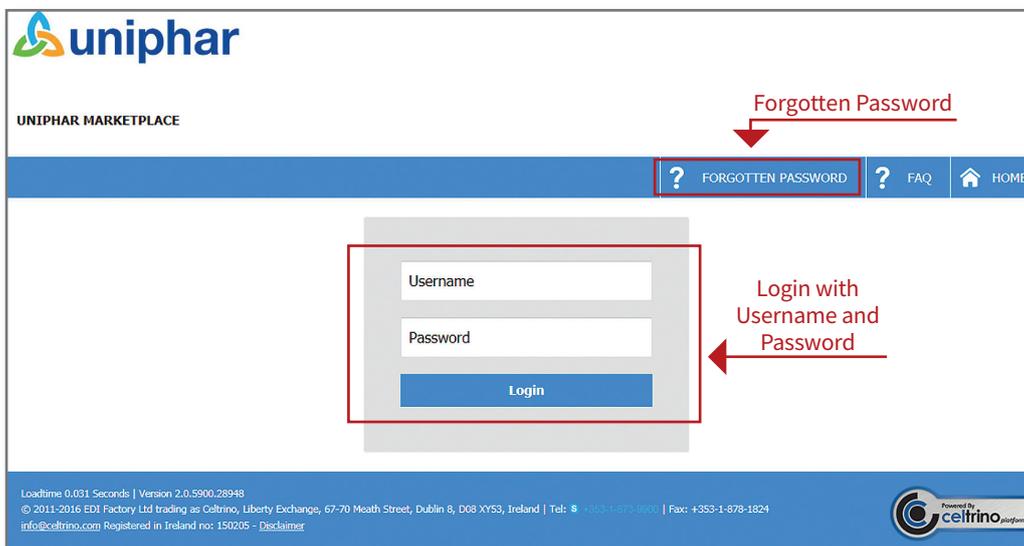
Direct Pharmacy Interaction with the Rx Marketplace

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.

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 (120min) 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

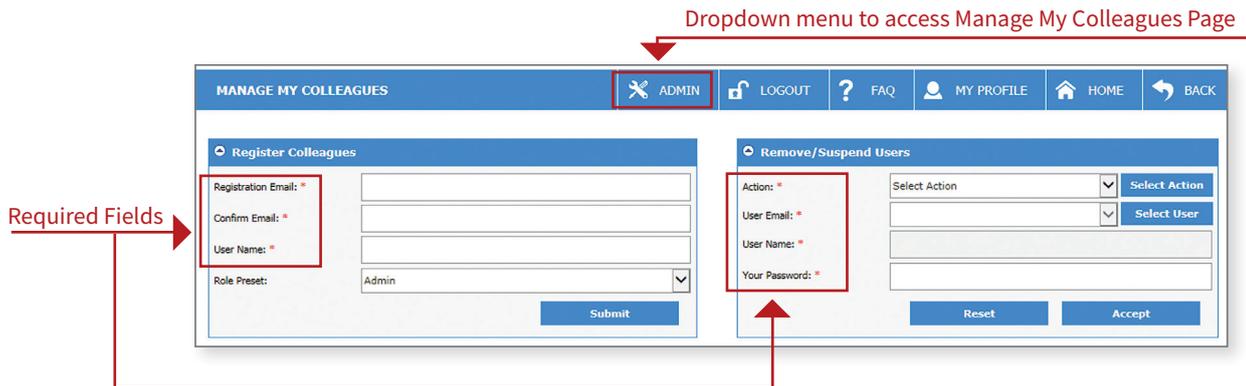
The screenshot displays the Unipharm Rx Marketplace interface. At the top, the Unipharm logo is on the left, and the user's name 'BERNARD - UNIPHARM' is on the right. Below the logo, there are navigation tabs: 'Documents', 'Notifications', 'Product Catalogue', and 'Aggregated Order'. A red box highlights the 'HOME' button in the top right navigation bar, with an arrow pointing to it from the label 'Home Button'. Another red box highlights the 'Documents' tab, with an arrow pointing to it from the label 'Documents'. A third red box highlights the 'Notifications', 'Product Catalogue', and 'Aggregated Order' tabs, with an arrow pointing to it from the label 'Notifications, Product Catalogue, Aggregated Orders'. Below the navigation 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 shows 'Total entries: 46' and 'View entries per page: 25'. The main content area is a table with columns: 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 10 rows of data, each with a checkbox in the first column and 'Download, View' links in the last column.

6.) 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 EOV 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.

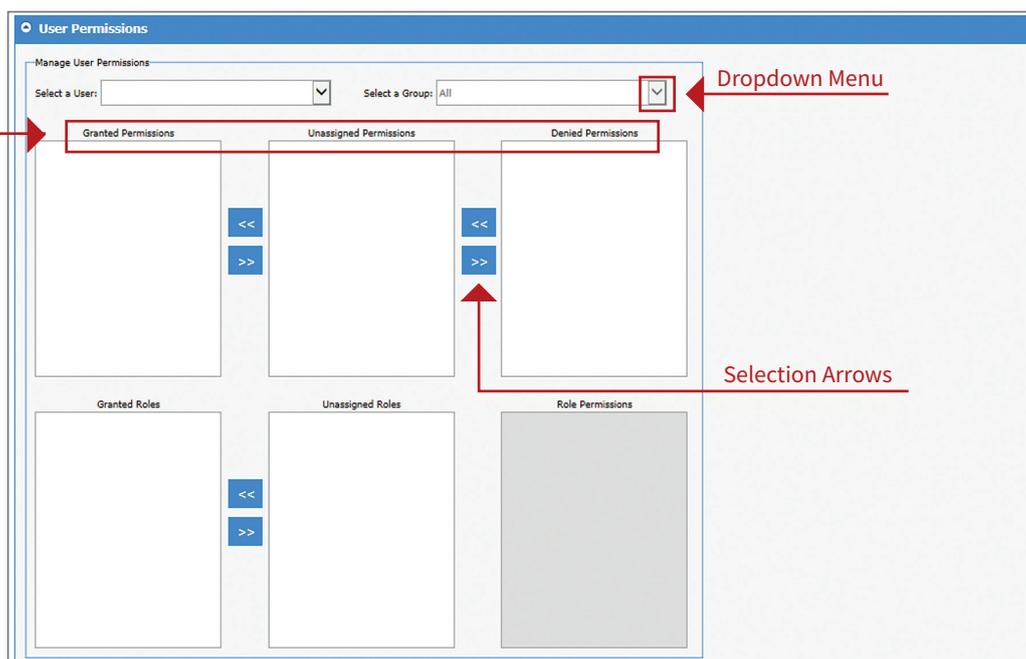
A User with **Permission to Manage My Colleagues** can access the User Permissions section by following the dropdown menu under Admin on the Navigations Panel at the top of the page and clicking on Manage My Colleagues. Once on the Manage My Colleague page the user will find User Permissions.

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.

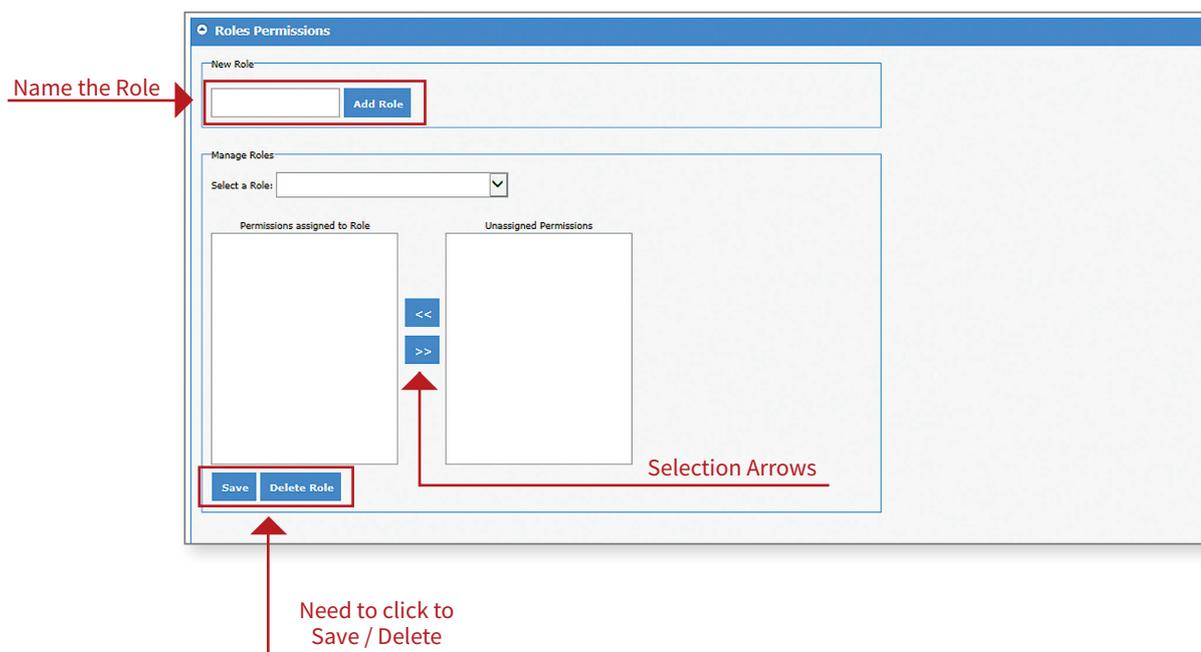
9.) In the **Role** section of the Manage My Colleague page (below the User Permissions section) the User can assign Permissions to a Role. Grouping specific Permissions into a Role allows for a quick selection process of Permissions without having to assign them each individually per User.

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 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.

The screenshot displays a user profile management interface. It is divided into three main sections: 'Personal Details', 'Security Details', and 'Confirm Existing Password'. The 'Personal Details' section includes fields for 'Your Email' (bernard.mccloskey@celtrino.com), 'Your Name' (Bernard), 'Phone Number' (4534534534523), and 'Language Preference' (English). The 'Security Details' section contains 'New Password', 'Confirm Password', 'Security Question' (Favourite City), and 'Security Answer' (Dublin). The 'Confirm Existing Password' section has an 'Existing Password' field and a 'Submit' button. Red boxes highlight the 'New Password', 'Confirm Password', 'Existing Password', and 'Security Question' fields. 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.

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 16.*
- 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.

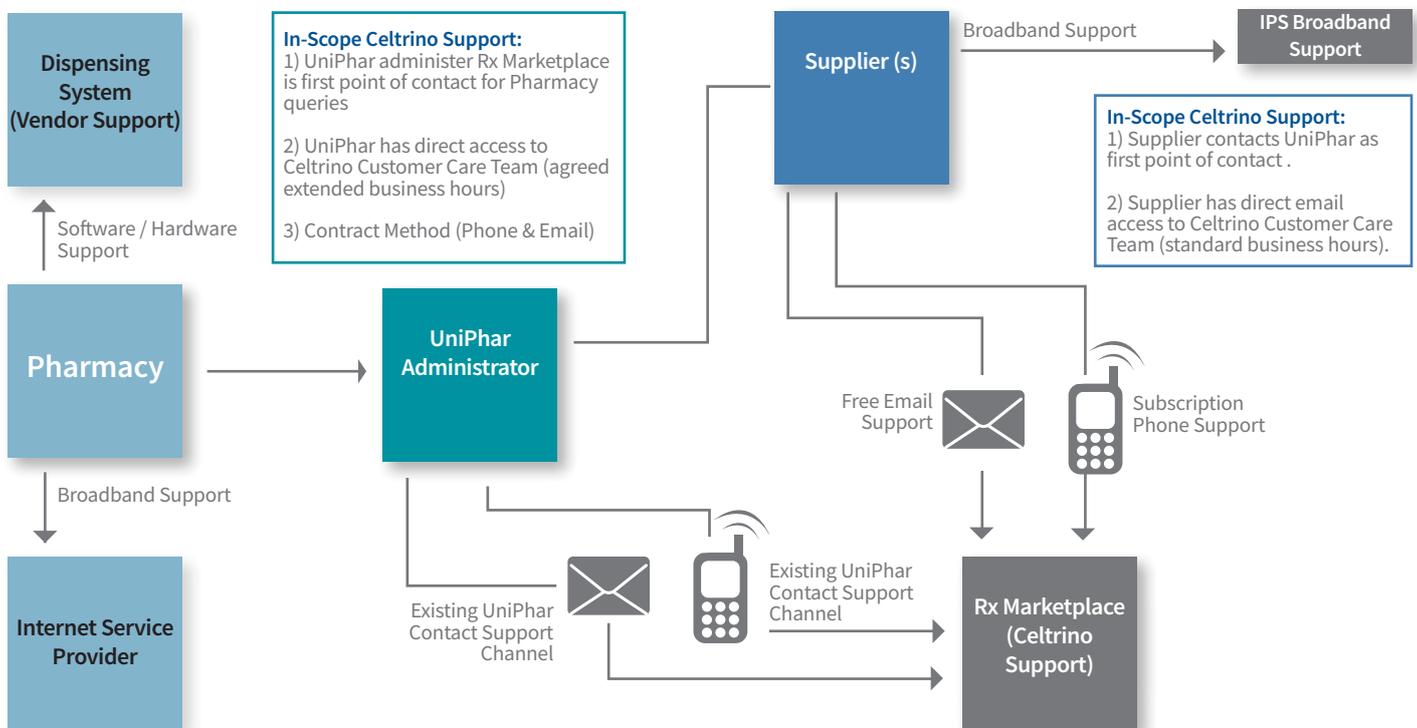
Service Definition - PIMS Marketplace Server Service

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 5.0 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 5.0)



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

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.

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

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)

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)

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