

Roadrunner

Buying Club Feature Interaction and Use Cases

Phase 1.5 (RQST)
Version 5
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User Experience Vision

This is a projection of what we want the user experience of the Buying Club to be like in the long term.

Integration into the Rearden Platform

When users log into RPA, they see the status of their open orders along with any upcoming reservations. As they visit other areas of the site, items from the buying club are presented along side what they are doing at the time. It could be as simple as showing packing supplies in the sidebar of the shipping section. Or it could be as subtle as noticing a user from San Diego is visiting Chicago in February for the first time, and asks if they would like to buy a copy of *The Business Traveler's Guide to Chicago* and a winter coat. And then the system would be flexible to give users the option to requisition the items, create a purchase order, or buy it themselves and either automatically create an expense report or allow them to pay for it out of their own pocket.

Add Buying Club functionality to the Mobile Personal Assistant, allowing users to review and approve orders, so a person being off site does not hold up the workflow. Allow mobile users to discover suppliers near their location and to scan product barcodes and check the price of those items in the Buying Club.

Finding Items

The Buying Club makes a number of recommendations to users, and they see these not as spam, but as being genuinely helpful. Some are items similar to what they have purchased in the past (you bought Oreos so you might like shortbread cookies). Some are items they have ordered multiple times in the past and the system knows it's time to order them again (you seem to buy batteries an average of once every three weeks and it's about that time) or that are available for less from a different supplier. Some are items that similar users or similar companies have ordered (other small tech companies have bought this projector). The site also offers content and guides to help companies stay on top of needs as they grow and evolve (Guide to Building a Home Office...buy a wireless router like this one, a fax machine like this one, etc.).

Even the way items are categorized and organized should be relevant to the user. Office workers don't need to see the agricultural and animal husbandry supplies, except that pest control products are in that section and they might want to purchase those. Develop a taxonomy that is smart enough to emphasize categories more likely to be accessed by the user and that can be organized in a way that is more inline with what that user expects.

Making Decisions

Provide users tools to aid them in making decisions. Allow users to rate and review both products and suppliers and capture why they liked or disliked them (if a user rated a product 2 stars because it wasn't a good value, but since I care more about quality than value, that 2 star rating should be given less weight). Show users the true price of items, including the tax and shipping costs for each supplier. The site should include multiple, high quality images and a wealth of information for each product. Video demonstrations, professional reviews, and buying guides should be created to provide context for items.

Use the Clipboard as a tool to collect, compare, and share items in the Buying Club. For example, if an office is buying new chairs for everyone, the Office Manager might add five different chairs to the Clipboard, share with the company, and ask users to comment or vote on them.

Creating a Marketplace

Create tools to allow every company with access to the Buying Club the ability to become a supplier. Make it simple and easy for even the smallest companies to set up a customized storefront, upload catalogs of items and services, communicate with potential buyers, bill them,

and receive payment. Suppliers should be able to easily use their existing payment system if they want, create reports, and export data to accounting and other systems. Allow these suppliers to attract buyers with special deals, offers, and other marketing tools.

Customer Service

Poor customer service can ruin any user experience. This issue becomes more complex when there are thousands of independent suppliers, each providing differing levels of customer service. Users need hassle free returns and a quick resolution to any issues that arise. The Buying Club needs to provide tools to aid both shoppers and suppliers communicate with each other, including a messaging system and live chat. The Buying Club should create incentives for suppliers to provide good customer service, such as ranking problem suppliers lower in lists of results, and even removing the worst offenders from the system. There should also be mechanisms that allow users to escalate problems to Rearden and systems that monitor transactions and can identify potential problems before they escalate (e.g., the system sees that an order that was placed a week ago still hasn't shipped, so it sends a message to the supplier to determine if there is a problem). And finally, the system should be easily integrated into the existing Customer Support and CRM solutions of suppliers.

Providing Control

Make it easy for managers to create approval workflows. Provide an easy way for them to add business rules and purchasing policies to the system and to make sure those policies are enforced. Give them tools to create custom reports, charts, and graphs to analyze procurement spending. They should be able to enter budgets into the system and compare them to actual costs.

Target Audience

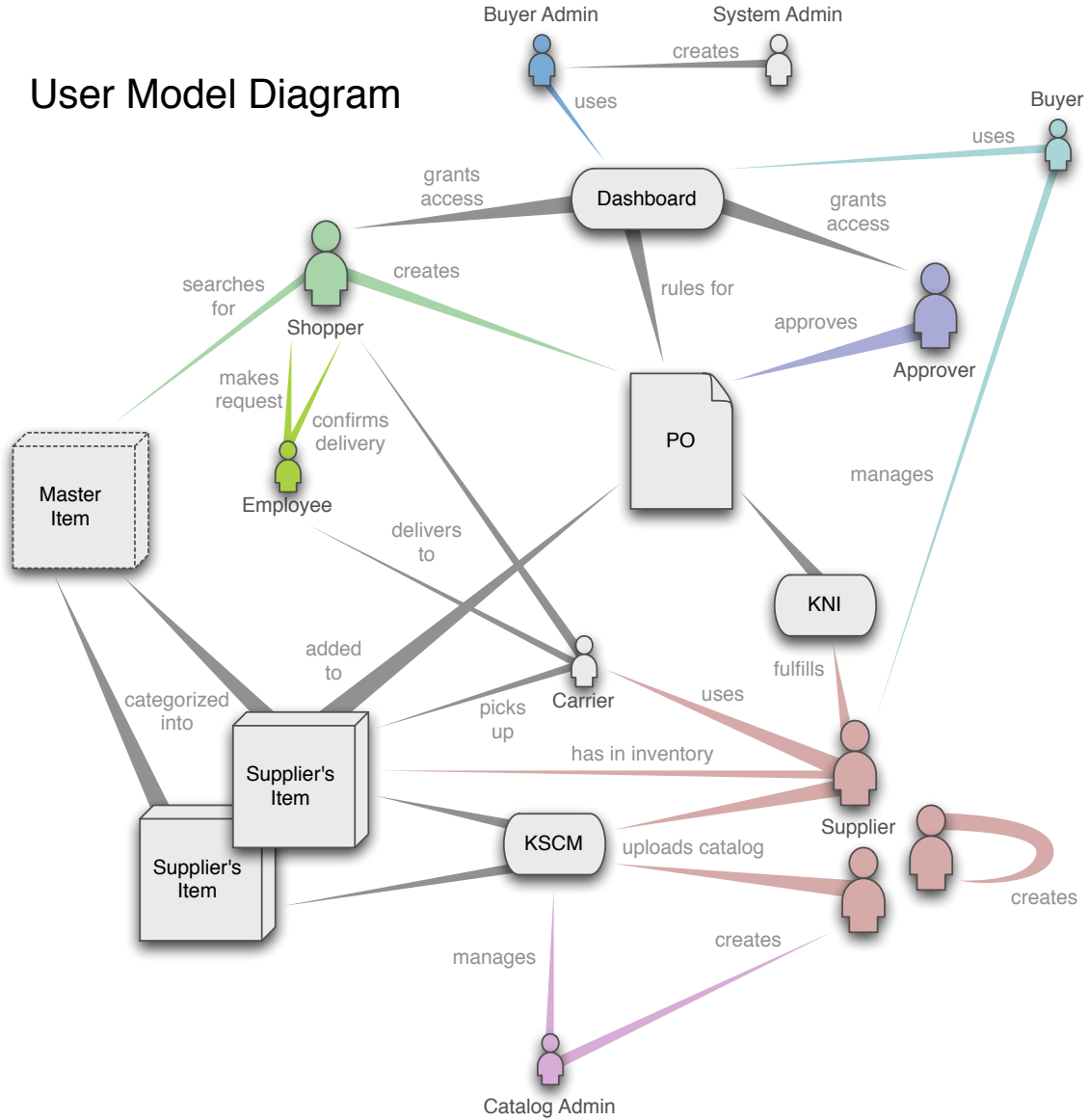
The Buying Club will begin focused on Small Businesses and eventually expand to include the Mid-Market.

Business Size	Employees	Revenue	Priority
Micro	Less than 10	Less than \$5 Million	Phase 1.5
Small	10 to 200	\$5 Million to \$100 Million	Phase 2
Mid-Market	200 to 1000	\$100 Million to \$1 Billion	Later Phases
Enterprise	More than 1000	Over \$1 Billion	n/a

The general approach will be to create an easy-to-use, streamlined, consumer-like interface. As the project develops, additional levels of policy compliance, approvals, and management features will be added to this interface. But the goal is to maintain the simple interface by hiding the bureaucracy when possible, and minimizing it when it's present.

For phase 1.5, the initial focus will be optimized for a very small, 10 person company. Based on financial data from Intuit, this company will be most interested in purchasing office supplies, janitorial supplies, and industrial supplies.

User Model Diagram



Actors

These are the roles users fall into when interacting with the system.

Actor	Phase 1.5	Phase 2
Shopper	Typical Use	Advanced Use
Approver	Typical Use	Advanced Use
Supplier	Basic Use	Advanced Use
Buyer Admin	Basic Use	Typical Use
Catalog Admin	Not in Scope	Typical Use
Anonymous User	Basic Use	Basic Use
Employee	Not in Scope	Typical Use
Buyer	Not in Scope	Not in Scope
System Admin	Not in Scope	Typical Use

Shopper

A person who has the authority to assemble purchase orders, such as an administrative assistant.

Approver

A person who has the authority to sign off on orders, such as a manager or executive. An order may require be multiple levels of approval. Approvers can also perform the same actions as Shoppers.

Supplier

A person in charge of managing order for the company selling the items and fulfilling the order.

Buyer Admin

An administrator in charge of setting up users and business rules for the organization placing orders.

Catalog Admin

An administrator in charge of creating and maintaining suppliers and their catalogs, such as a Rearden employee.

Anonymous User

A person accessing the system without logging in. After a successful login, the Anonymous User becomes Employee, Shopper, Approver, etc.

Employee

A person working for the organization placing orders.

Buyer

A purchasing agent or purchasing manager for a large company. A person who negotiates with suppliers and sets policies.

System Admin

A Rearden employee responsible for the system as a whole and the creation of Buyer Admins and Catalog Admins.

Systems

This is a partial list of the other systems the Buying Club will need to interact with.

System	Phase 1.5	Phase 2
KNI	Basic Use	Typical Use
KSCM	Basic Use	Typical Use
T-Hub	Basic Use	Typical Use
Dashboard	Basic Use	Typical Use

KNI

Also known as Ketera Network Invoicing. It is an existing Ketera system Suppliers interact with to manage orders.

KSCM

Also known as Ketera Supplier and Content Management. It is an existing Ketera system that allows for catalog uploads, approvals, and exports.

T-Hub

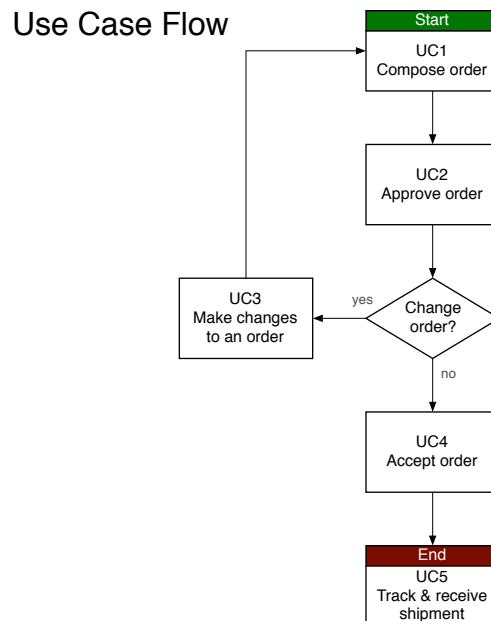
Also known as Transaction Hub and Document Exchange. It is an existing Kitera server that stores and forwards documents to their intended recipients.

Dashboard

The part of the Rearden Platform’s interface where administrators can control user access and company wide preferences for services offered by the platform.

Use Cases

ID	Primary Actors	User Flow Name	Scope
UC1	Shopper, Anonymous User	Compose order	Phase 1.5
UC2	Approver	Approve order	Phase 1.5
UC3	Shopper	Make changes to an order	Phase 1.5
UC4	Shopper, Supplier, KNI	Accept order	Phase 1.5
UC5	Shopper, Supplier, KNI	Track and receive shipment	Phase 1.5



UC1: Compose order

A shopper finds an item, adds it to the cart, and creates an order for it. Anonymous users can add items to the cart, but need to login before creating an order.

Primary Actors

Shopper, Anonymous User

Preconditions

None

Post-conditions

Shopper logged in, order exists

Basic Flow

1. Shopper (or Anonymous User) finds an item in a catalog
2. Shopper (or Anonymous User) adds the item to the cart
3. Shopper (or Anonymous User) views the cart
4. System calculates estimates for tax and shipping
5. Shopper (or Anonymous User) proceeds to checkout
6. System defaults settings to most recent shipping, billing, and payment information
7. Shopper views summary of the order
8. Shopper submits order
 - a. Proceed to UC2
 - b. Future phases will need to accommodate purchase requests and punch-outs

Alternate Flows

- 3a. User makes changes to the cart
 1. User changes the quantity of an item or removes it from the cart
 2. User resumes flow, returning to step 1 if adding additional items
- 5a. User exits before creating an order
 1. User exits system
 2. System remembers items in cart
 3. User can resume this flow at any point in the future
- 5b. User is Anonymous User and attempts to create an order
 1. System prompts user to login
 2. User successfully logs in (becoming Shopper)
 - a. NOTE: Registered users should always be given more access than anonymous users. We should avoid situations where a user has access to the Buying Club while anonymous, but loses that access after logging in.
 3. Continue flow
- 5c. User attempts to create order from a cart containing items from multiple suppliers
 1. System creates an order for each supplier and organizes the items accordingly
 2. Shopper views a summary of the master order comprised of these multiple orders
 3. Continue flow at step 8 for master order
- 5d. User wants to remove an item from the order about to be created, without removing that item from the cart
 1. User selects an item to be "saved for later"
 2. System separates the saved item from the remaining items in the cart, indicating it will not be in any order created from the cart

3. User create an order from the remaining items
4. Continue flow

6a First time shopper has no previously used shipping, billing, and/or payment information

1. System displays a message informing the Shopper that each type of information is needed
2. One at a time, Shopper selects each type of information
3. For each type of information, shopper adds the data that is needed (e.g., the address, etc.) or selects an option from a pre-populated list (if such options exist)
4. System validates new data, prompting the Shopper to correct errors as needed
5. Continue flow

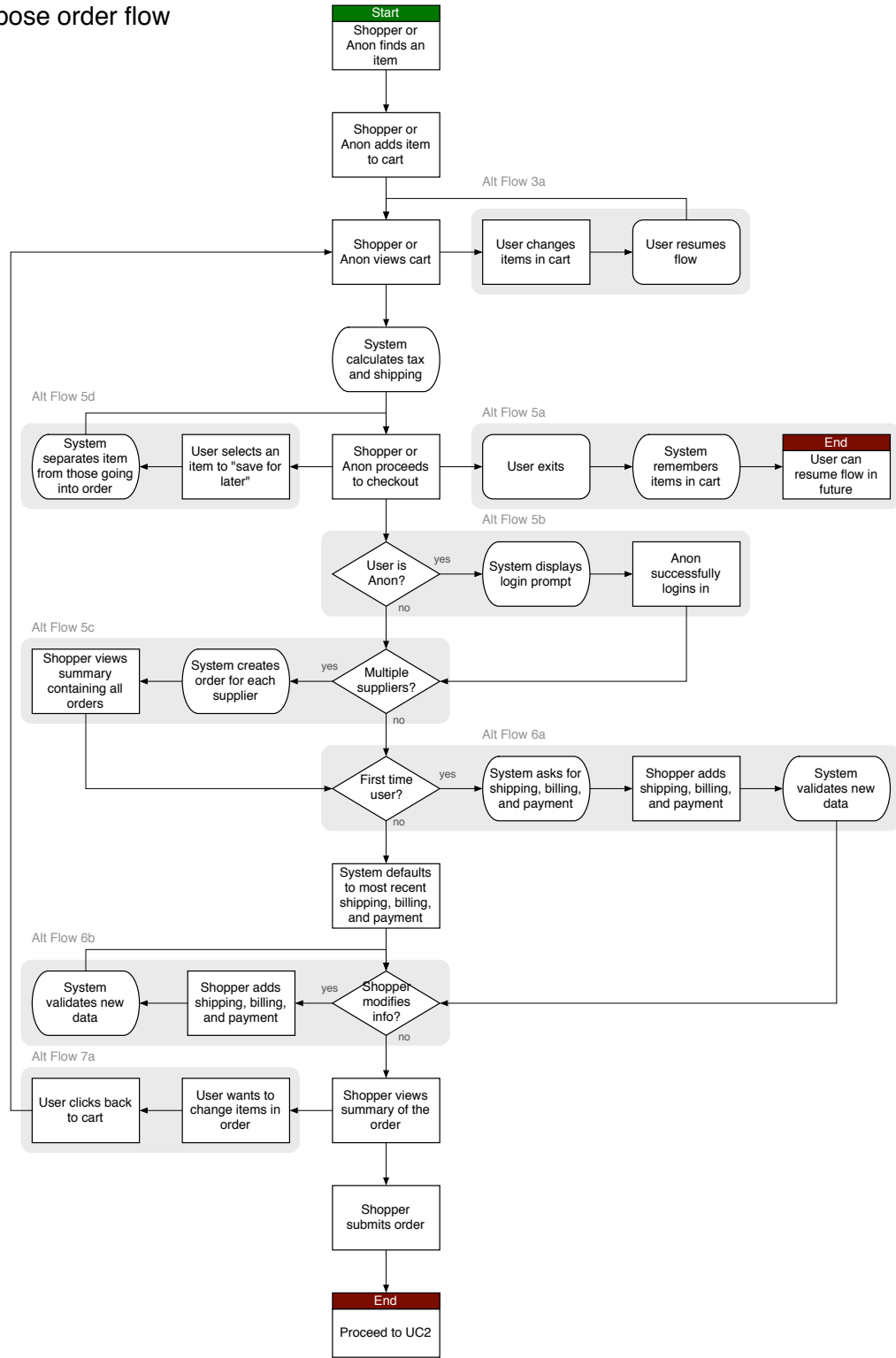
6b Shopper adds or modifies shipping, billing, and/or payment information

1. Shopper selects one or more types of information to change
2. Shopper makes a different selection or creates a new selection and adds the data for it (e.g., the address, etc.)
3. System validates new data, prompting the Shopper to correct errors as needed
4. Continue flow

7a. User makes changes to the items in the current order

1. User clicks a back to cart button
2. Continue flow at step 3

UC1 Compose order flow



UC2: Approve order

An approver reviews and approves a submitted order

Primary Actors

Approver

Preconditions

Approver logged in, order submitted

Post-conditions

Order is approved

Basic Flow

1. Shopper submits an order
2. System notifies Approver that the order has been submitted
3. Approver select an order to review
4. Approver reviews the order
5. Approver approves the order
 - a. Future phases will need to support multiple levels of approval
6. System notifies all users involved with the order (Shopper and Approvers) that the order has been approved
7. System submits order to Supplier
 - a. Proceed to UC4

Alternate Flows

2a. No approver set in system

1. System marks the order as automatically approved
2. Resume flow at step 7

2b. The Shopper submitting the order is the same user as the Approver set in the system

1. System substitutes an Alternate Approver for the Approver
2. Continue the flow at step 2

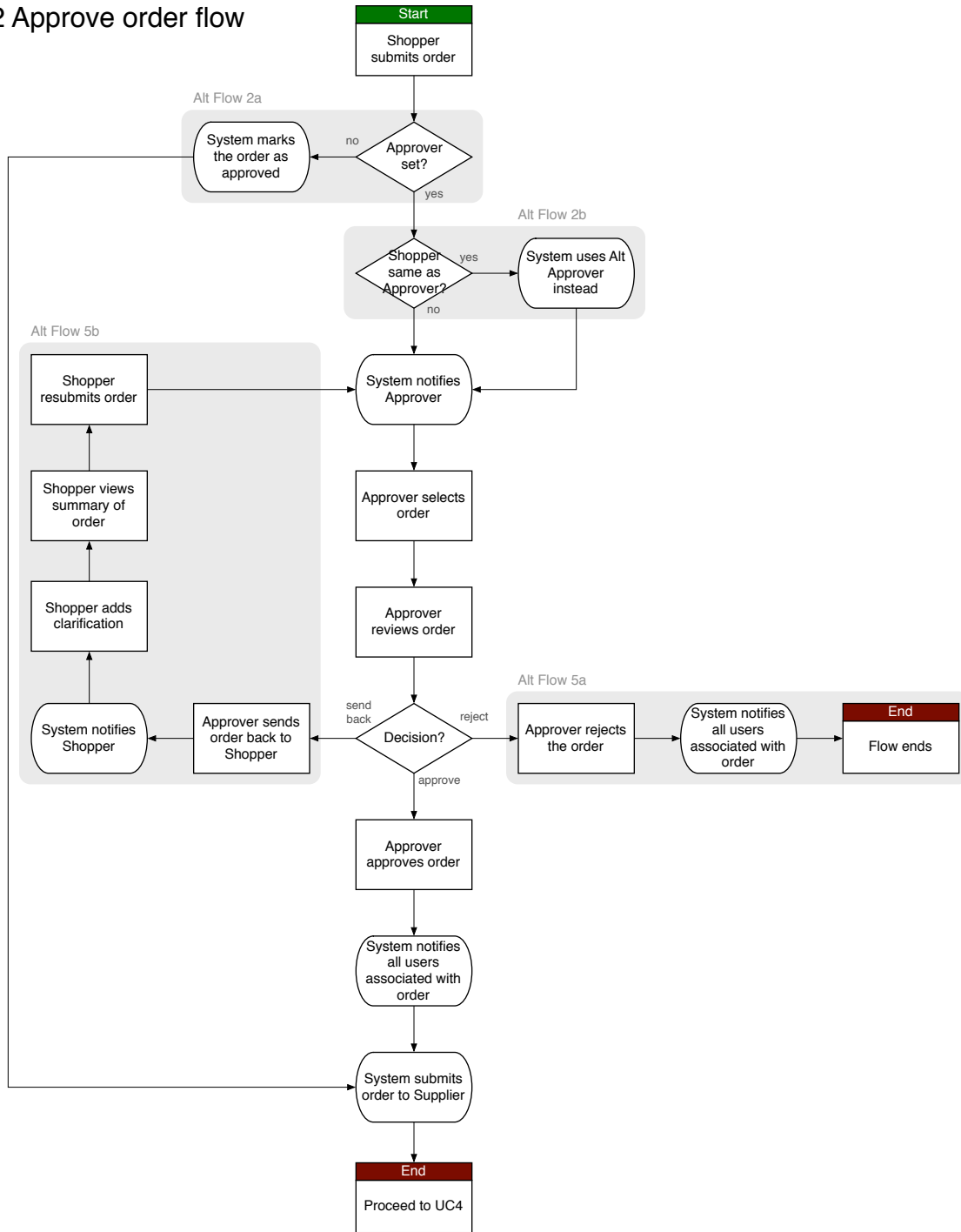
5a. Approver rejects the order

1. Approver rejects the order, adding comments as needed
2. System notifies Shopper that the order has been rejected
3. Shopper can make a copy of the order, modify it, and resubmit as needed
4. Flow ends

5b. Approver sends the order back to the Shopper

1. Approver sends order back to Shopper with a request for clarification
2. System notifies Shopper that clarification is needed
3. Shopper adds clarification to the order
4. Shopper views a summary of the order
5. Shopper resubmits the order
6. Continue flow at step 2

UC2 Approve order flow



UC3: Make changes to an order

To make changes, the shopper needs to cancel an order, copy that order, modify it, and then resubmit it.

Primary Actors

Shopper

Preconditions

User logged in, order exists and has not been accepted by Supplier

Post-conditions

Order is canceled, user proceeds through UC1

Basic Flow

1. Shopper views list of orders
2. Shopper selects an order
3. Shopper changes status of order to canceled
4. System notifies all users associated with the order (Shoppers and Approvers) that it has been canceled
5. Shopper creates a copy of the order
6. System places the items from the canceled order into Shopper's cart
7. Shopper makes changes to the cart (change quantities, remove items, add items)
8. Go to step 5 or UC1 Compose order

Alternative Flows

None

UC4: Accept Order

The supplier reviews and accepts the order, with the shopper being kept in the loop as needed.

Primary Actors

Shopper, Supplier, KNI

Preconditions

User logged in, order submitted to supplier

Post-conditions

Supplier accepts order

Basic Flow

1. System notifies Shopper that order has been entered into the System
2. KNI notifies Supplier that there is a new order
3. Supplier selects the order to review in KNI
4. KNI acknowledges Supplier received the order
5. Supplier reviews the order in KNI
6. If original costs were estimates, Supplier finalizes cost, including tax and shipping
7. Supplier accepts the order in KNI
 - a. Future phases will require more robust collaboration, including the possibility of Live Chat and other features
8. System notifies Shopper that the order has been accepted
 - a. Proceed to UC5

Alternate Flows

- 6a. Final cost has changed from estimated cost
 - 1. If the change in cost is above a set threshold, the System notifies the Shopper
 - 2. Continue flow

- 6b. Final cost has significantly changed from estimated cost
 - 1. If the change in cost is above a second set threshold, the System forces the Supplier to communicate with the Shopper
 - 2. Continue with Alternate Flow 7b

- 7a. Supplier rejects order
 - 1. Supplier rejects order in KNI
 - 2. System notifies Shopper that the order has been rejected
 - 3. Flow ends

- 7b. Supplier needs to communicate with Shopper
 - 1. Supplier sends message to the Shopper via KNI
 - 2. System notifies Shopper of the message
 - 3. Shopper takes any needed actions and responds to the message
 - 4. KNI notifies Supplier of the response
 - 5. Continue flow at step 5

- 8a. Shopper cancels order before it is accepted
 - 1. Shopper cancels the order
 - 2. KNI notifies Supplier that the Shopper has canceled the order
 - 3. Specific events may be triggered depending on the policy of the Supplier (e.g., Shopper charged an extra fee)
 - 4. Flow ends

UC5: Track and receive shipment

Once the supplier has accepted the order, the shopper (and approver) needs to track the status of the shipment.

Primary Actors

Shopper, Supplier, KNI

Preconditions

User logged in, order accepted by supplier

Post-conditions

Order closed

Basic Flow

- 1. Supplier indicates the order has shipped via KNI
- 2. KNI generates ASN (Advance Ship Notice)
- 3. System notifies Shopper that the order has shipped (ASN)
- 4. Shopper selects an order
- 5. Shopper views status of shipment
- 6. System notifies shopper of delivery status
- 7. Carrier delivers Shipment to Recipient

8. System notifies all users associated with the order (Shoppers, Approvers, and Suppliers) that the shipment has been delivered by carrier
9. Supplier closes the order via KNI

Alternative Flows

5a. Order contains multiple shipments

1. The status of each shipment is displayed
2. Continue flow

7a. Order was not received

1. Shopper contacts Supplier according to Supplier's customer support policy
2. Shopper and Supplier collaborate to resolve the issue
3. End flow

8a. Order contains multiple shipments

1. The previous steps of this flow are repeated for each shipment
2. Continue flow after all shipments have been delivered

Additional Features

Finding Items

- Search
 - By keyword
 - Using Rearden's Relevance engine
 - Type ahead/auto-complete search suggestions
- Browse
 - By category
 - By supplier
 - By brand/manufacturer
 - Newest items
 - Items with the highest savings
 - Best selling items
- Filter and sort lists of items
 - Filter and sort options and search keywords should create bookmark-able URLs
- View a preview of an item without loading a new page (quick view)
- View item details
 - View all suppliers offering an item
 - Determine the true cost of an item for each supplier, including tax and shipping
- View supplier details
- Compare products
 - Using the Rearden Clipboard?
- Notify user if price of items in cart has changed since last session

Favorites

- Add item to a favorites list
 - From item detail pages
 - From existing orders
- Retrieve item from a favorites list
- View, edit, and delete items in a favorites list

Manage Orders

- View status of orders
- View order history

- View details of orders
- Change status of order
 - Cancel, approve, reject, respond, etc.
- Copy the items in an order into the shopping cart

RQST Home

- Add a Buying Club module to the RQST Home page

Help

- View help section for Buying Club
- View supplier customer service information
- Find out how to contact supplier
- Find out how to contact Rearden or Channel Partner

Settings

- Change stored addresses, address book, contacts
- Set Approver substitutes (e.g., allow someone else to approve while user is on vacation)
- Change payment cards
- Change display settings (internationalization)
- Change shopping preferences, etc.

Buyer Admin Tasks

- Turn approvals on or off
- Set and change the single user who is the approver

Phase 1.75

Recurring Orders

- Create a new recurring order
 - From scratch
 - From previous orders
- View, edit, and delete a recurring order

Saved Searches

- Save a search
- Perform a saved search
- View, edit, and delete a saved search

Phase 2 and Beyond

Finding Items

- Recommendations that are personalized and relevant
 - Analyze purchasing data from all users to recommend items for current user based on similar users
- Browse by previous items ordered by user
- Browse by tags
 - Shopper adds tags to an item
- Brand pages
- Product category pages
- Browse items based on user categories

- E.g., a “Popular with Small Tech Companies in California” page filtering by company size, company vertical, and company geography to show items relevant to the user’s company
- Additional content
 - Buying guides, how to guides, top 10 lists, etc.
 - Can be user generated, licensed, or created internally

Item Information

- Item reviews
 - Star rating
 - Written review
 - Capture the reason why a user likes or dislikes an item (for relevance)
- Supplier reviews
 - Star rating
 - Written review
 - Capture the reason why a user likes or dislikes a supplier (for relevance)
- View item availability
 - Out of stock, back ordered, pre order, available on mm/dd
- More and better images for items
- Video demos and reviews for items
- Rich data about an item compiled from a variety of suppliers and other sources
- Display compliance with rules (amount, category, shipping method)

Retention

- Sales, deals, promotions – personalized and relevant
- Emails, newsletters, etc.
- Price comparison with competitors
- Frequent buyer points
 - Gamification of Buying Club by awarding points to users for each dollar they save
- Deals on recurring or repeat orders
- Earn discounts/points for reviews, etc. to encourage user generated content
- Collaborate with other buyers on group orders for bigger discounts
 - Come together on an order by order basis by location

Taxonomy

- Map UNSPSC into a more user friendly taxonomy
- Creating multiple taxonomies that can intelligently organize items for specific users
- Allowing administrative customization of taxonomies

Rearden Platform

- Shopping modules for home page
- Shopping modules for other platform services
 - E.g., a sidebar showing boxes and packing supplies when users are in the Shipping section or showing a travel guide for Denver when booking a trip to that city
- Creation of spending and procurement analytics and reports
- Integration into Expense
- Integration into platform wide workflow and approval tool
- Integration into Mobile Personal Assistant
- Integration into Clipboard

Private Marketplace

- Turning Buyers into Suppliers

- Range of self-service tools
- Range of customer support tools
- Integration into supplier systems for ecommerce, billing, CRM, and customer support

Shopper

- Punch-outs
- Auto order
- Interface for returns and customer service
- Editing purchase orders
- Generate physical documents
- Get final cost from supplier before submitting for approval
- Ability to save an order without submitting it

Approver

- Requiring multiple approvers
- More complex approval workflows

Collaborate with Supplier

- More robust tools (e.g., live chat features)
- More complex communications

Supplier

- Self-service management of catalogs and supplier master data
- Methods to market themselves to suppliers
- Provide support, returns, help, live chat, etc.

Buyer Admin

- Setup roles and user permissions
- Set approval workflow – estimates prices or final prices
 - Using the Rearden's Expense and Dashboard workflow tool?
- Set up policies for dollar amounts
- Set up policies for specific suppliers
- Set up policies for item category
- Set up policies for shipping methods
- More complex user roles
- More complex business rules
- Enforcement of purchasing policies

Catalog Admin

- Interface for creation and management of suppliers
- Interface for creation and management of catalogs

Employee

- Interface for employees to browse and submit requisitions and purchase requests