**1. Supplier Origination Flow**

**A. Login and Dashboard Access**

* **Step 1:** **Login:** The supplier authenticates into the SafeShipping portal using multi-factor authentication.
* **Step 2:** **Dashboard Landing:** Upon login, the supplier is presented with an order management dashboard displaying current orders, status alerts, and a clear "Create New Order" button.

**B. Order Creation Process**

* **Step 3:** **Initiate Order:** Supplier clicks on “Create New Order.”
* **Step 4:** **Enter Order Details:**
  + **Pickup Information:** Enter warehouse/store address, contact details, and time window for pickup.
  + **Package Information:** Provide package details (dimensions, weight, type, special handling instructions).
  + **Destination Details:** Input end delivery address(es); if multiple, a list or map overlay may be provided.
* **Step 5:** **Select Delivery Mode:**
  + Options include delivery via store drop-off, truck, bus, car, or bicycle.
  + Each option might trigger sub-options (e.g., for bicycles, specify if a courier is available, or for trucks, vehicle size requirements).

**C. Order Confirmation and Notification**

* **Step 6:** **Review and Confirm:**
  + A summary screen displays all entered data including estimated costs, pickup/delivery windows, and environmental notes (if any).
  + Supplier confirms the order.
* **Step 7:** **Tracking Number Generation:**
  + The system auto-generates a unique tracking ID.
  + A workflow status flag is set to “Awaiting Contractor Assignment.”
* **Step 8:** **Contractor Notification:**
  + Automated alerts (via API integration or internal messaging) notify shipping contractors that a new order is ready for pickup.

**D. Exception Handling (Supplier Side)**

* **Step 9:** **Validation and Corrections:**
  + If mandatory fields are missing or if there’s a conflict (e.g., overlapping pickup slots), the system prompts for corrections.
* **Step 10:** **Order Cancellation/Modification:**
  + Supplier has an option to modify or cancel an order before contractor assignment.

**2. Shipping Contractor Flow**

**A. Access and Order Acknowledgment**

* **Step 1:** **Login:** Shipping contractor logs into a dedicated contractor portal or mobile app.
* **Step 2:** **Order Notification:**
  + System displays a live feed of pending orders with details such as pickup location and delivery mode.
  + Contractors can filter based on transportation mode (e.g., boats, airplanes, trucks, etc.).

**B. Order Acceptance and Pre-Pickup Verification**

* **Step 3:** **Select and Accept Order:**
  + The contractor reviews the order summary and accepts it using a click-to-confirm option.
  + The accepted order status is updated to “Assigned” and visible to both the supplier and the contractor.
* **Step 4:** **Pre-Pickup Checklist:**
  + Verify vehicle readiness and suitability for the specific shipping mode (e.g., if shipping by bus or boat, ensure compliance with capacity requirements).
  + Confirm the availability of any necessary equipment (GPS, mobile scanner for QR codes, etc.).

**C. Pickup and In-Transit Tracking**

* **Step 5:** **Arrival at Supplier Location:**
  + Contractor arrives at the designated pickup location.
  + Uses a mobile interface to check-in.
* **Step 6:** **Pickup Verification:**
  + Scan the package’s QR or barcode to verify the tracking ID.
  + The system captures real-time data: timestamp of pickup, condition of package (option for short comment/photo upload).
  + Status updates to “In Transit.”
* **Step 7:** **Transit Updates:**
  + As the shipment moves, the contractor logs automatic updates (via GPS tracking integration) at key checkpoints (e.g., warehouse exit, highway, city entry).
  + Optionally, a manual update facility is available to note delays, detours, or incidents.

**D. Delivery and Confirmation**

* **Step 8:** **Arrival at Destination:**
  + At the delivery point, the contractor uses the app to mark the arrival.
  + Depending on the delivery method, either a physical signature is captured (for door-to-door) or a confirmation code is shared with the recipient (for pickup at a store).
* **Step 9:** **Final Update:**
  + Once delivery is confirmed (via digital signature, photo proof, or customer PIN confirmation), the status updates to “Delivered.”
  + Automatic notifications are pushed to both supplier and customer adding a time-stamped log.

**E. Exception Handling (Contractor Side)**

* **Step 10:** **Handling Shipping Delays or Issues:**
  + If an unexpected delay occurs (e.g., vehicle breakdown), the contractor marks the order accordingly, enters the reason, and the system triggers an alert to suppliers and customers.
* **Step 11:** **Multiple Drops/Stops:**
  + For shipments with multiple destinations, each stop is logged individually.
  + The contractor should use the mobile app to navigate and confirm each delivery before moving to the next.

**3. Customer End-User Flow**

**A. Tracking Initiation and Validation**

* **Step 1:** **Receive Tracking Info:**
  + Customers receive an email or SMS with a unique tracking number and a link to the tracking page.
* **Step 2:** **Access Tracking Portal:**
  + Customer visits the tracking page—this can be a seamless web UI or mobile interface.
* **Step 3:** **Enter Tracking Number:**
  + Customer enters the tracking ID.
  + The system validates this entry and retrieves order information.

**B. Order Status and Details Display**

* **Step 4:** **Display Tracking Timeline:**
  + A dynamic timeline shows key stages: Order Created, Assigned to Contractor, Picked Up, In Transit, Out for Delivery, Delivered (or Ready for Pickup).
  + Visual cues (like icons for trucks, bicycles, etc.) indicate the shipping method at each stage.
* **Step 5:** **Detailed Status View:**
  + Clicking on any stage expands additional details: timestamps, current location (using map integration), next expected update, and any relevant notes.
* **Step 6:** **Pickup vs. Direct Delivery Instructions:**
  + If the order is designated for pickup at a store, the system highlights the pickup location, store hours, and any identification needed.
  + For direct deliveries, the portal confirms the delivery window and allows acknowledgment upon receipt.

**C. Customer Support and Additional Features**

* **Step 7:** **Real-Time Notifications:**
  + Customers can opt-in or modify alerts for SMS/email updates for each status change.
* **Step 8:** **Feedback and Support Access:**
  + An integrated support chat or FAQ section is available if the customer has questions about delays or if the package isn’t delivered on schedule.
* **Step 9:** **Post-Delivery Engagement:**
  + Once confirmed delivered, customers might be prompted to rate the experience and leave feedback.
* **Step 10:** **Interactive Map and Route Overview:**
  + For a more engaging experience, an interactive map may display the current route of the shipment if available, giving an estimated time-of-arrival update