

Understanding Shipping Web Services

This section provides an overview of the UPS Shipping Web Services. It describes the services available through the Shipping API, and it explains—at an overview level—how the API operates.

What Shipping Services Can Do

The Shipping API makes UPS Shipping Web Services available to client applications that communicate with UPS using the Internet. With the Shipping API, applications can prepare or schedule shipments, manage returns, or cancel previously scheduled shipments.

Shipments

Shipping Web Services give your applications many ways to manage the shipment of small packages to their destination. UPS offers a range of delivery time frames from same day to standard ground transportation. Shipments may be within the United States or international, and they may range from letter documents to large packages. (Note: for freight services, please refer to section on UPS Freight Web Services.)

UPS also supports many valued added services for shipments, including collect on delivery (COD), declared value, delivery confirmation, and automatic notification of delivery status.

For full details on all UPS shipping services, please consult the latest *UPS Rate and Service Guide* available at <http://www.ups.com>. Note that these shipments are sometimes called *forward shipments* or *outbound shipments* to distinguish them from returns.

Cancellations (Voids)

If you need to cancel, or *void*, a previously scheduled shipment, the UPS Shipping Services let client applications automate that task.

Returns

The Shipping API also supports UPS returns services. Either as part of a forward shipment or in a separate process, clients can request a return label for their customers. (Note: UPS can provide a label for a return shipment even if it did not provide a label for the forward shipment.) With return services, you can post a return label on your website, include a label in an outbound shipment, ask UPS to email or mail the return label to your customer, or request a UPS driver to pick up the package at the your customer's location. As with forward shipments, details on return shipment services can be found in the latest *UPS Rate and Service Guide* at <http://www.ups.com>.

How Shipping Services Work

Because forward and return shipments share many of the same characteristics (they have an origin, destination, service type, etc.), the Shipping API uses the same procedures and message types for both services. In either case, applications can choose between a two-stage process and a single request. Cancelling (also known as *voiding*) a shipment requires its own procedure and message types.

Two-Stage Shipments and Returns

For forward and return services client applications may use a two-stage procedure to process a shipment. As Figure 1 shows, the procedure begins when a client application sends a ShipConfirmRequest to UPS. This request provides details of the shipment and the desired UPS services. UPS replies to this request with a ShipConfirmResponse, which completes the first stage of the process. ShipConfirmResponses include estimated rates for the shipment. If the rates and services are acceptable to the client, it may move to the second stage by sending a ShipAcceptRequest to UPS. This message authorizes UPS to charge for the shipment and process the shipment data. UPS acknowledges the request by returning a ShipAcceptResponse. For forward shipments and for preprinted return labels, this response includes a label for the shipment.

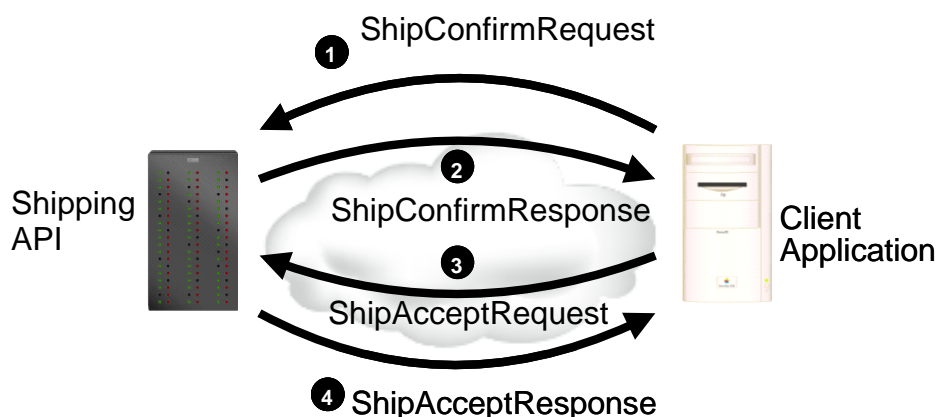


Figure 1. Forward and return shipments may use four separate messages to complete the shipment processing.

Clients that want to include preprinted labels as part of forward shipments must perform this four-step procedure twice. One time processes the forward shipment, and the second time retrieves the return label.

Single-Stage Shipments and Returns

In addition to the two-stage process the previous subsection describes, client applications may process a forward or return shipment with a single request and response. With this process, clients will not have the opportunity to review estimated rates before accepting the shipment. As Figure 2 illustrates, clients

invoke this process with a `ShipmentRequest` message, to which UPS replies with a `ShipmentResponse`.

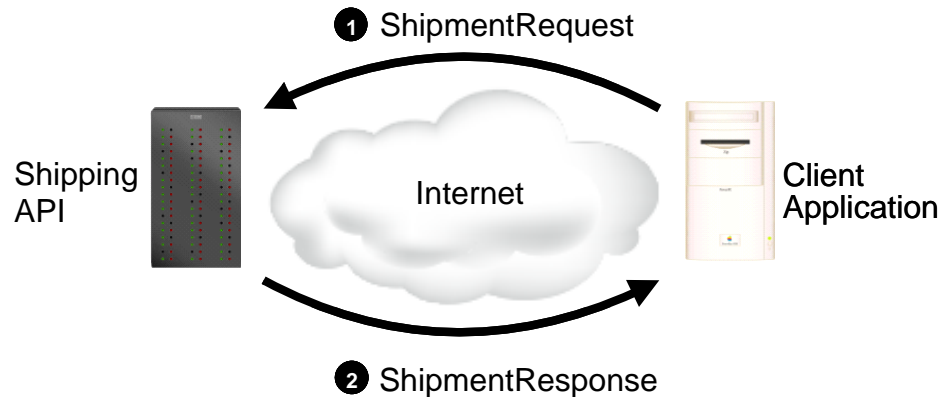


Figure 2. Clients may also process a shipment with a single request and response.

Cancellations (Voids)

To cancel, or *void*, a previously scheduled shipment, client applications send a `VoidShipmentRequest` to UPS. As Figure 3 illustrates, UPS replies to this request with a `VoidShipmentResponse`.

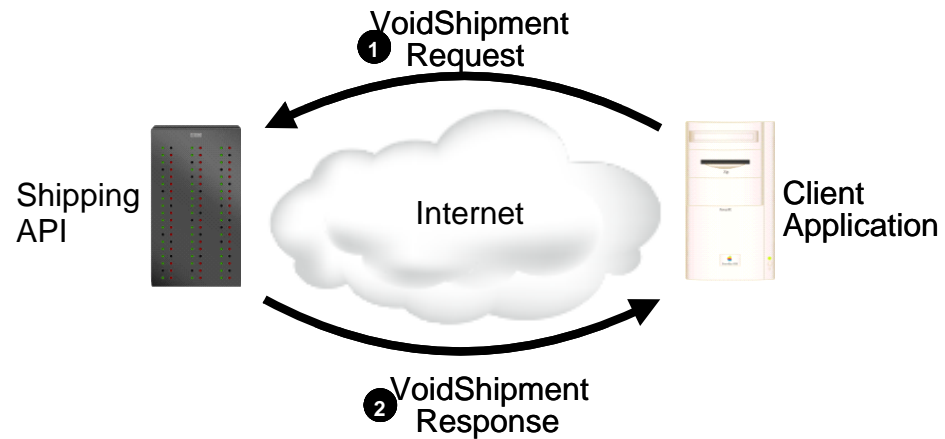


Figure 3. `VoidShipmentRequest` messages let client applications cancel a previously scheduled shipment.

Applications may void forward shipments up to 28 days after initially processing them. Return shipments must be voided within 24 hours.