



Introduction to bLoyal APIs and Integration Options

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"Helping you build loyal customers"™



1. Introduction

bLoyal is a cloud based omni-channel customer loyalty and order processing platform that works across channels and devices. A key part of being an omni-channel solution is integration with other systems. bLoyal provides an open integration service to enable clients and partners to integrate bLoyal with any system. Our goal is to make it easy for you to add bLoyal services to your POS application, Ecommerce system, web site, or BackOffice system.

This document provides a high level overview of the integration options provided by bLoyal along with the integration scenarios they were intended for.

For more detail please see one of the following detailed integration guides. Each are made available with a signed NDA with bLoyal and can be found in the bLoyal API support forum.

- **bLoyal-POS-Integration-Guide.doc** - This document is intended for POS vendors or BackOffice application vendors developing a connector to bLoyal.
- **bLoyal-Ecommerce-Integration-Guide.doc** – This document is intended for Ecommerce vendors developing a connector to bLoyal.
- **bLoyal-Web-Integration-Guide.doc** – This is intended for web developers wanting to integrate bLoyal into a client’s web site, marketplace, or content management system.

2. Integration Use Cases

The bLoyal APIs were designed around the following primary users and use cases.

- **Web Designers** – Web designers adding bLoyal Snippets to their client’s web site. This includes customer & club signup, member balance & account management pages, and shopping cart. See the bLoyal-Web-Integration-Guide for more detailed information.
- **Custom Web Developers** – Web developers either working for a bLoyal client or on behalf of a bLoyal client to integrate bLoyal loyalty and order processing to a client’s web site. This is typically a custom “one-off” integration. See the bLoyal-Web-Integration-Guide for more detailed information.
- **POS Application Vendors** – POS application vendor integrating the bLoyal Loyalty Engine with their POS application as a product integration that is intended to be reused across clients using the POS Application. This is to enable in-flow promotions, loyalty accruals and benefits, and (optionally) POS shipping and pick up orders. See the bLoyal-POS-Integration-Guide for more detailed information.
- **Ecommerce Application Vendors** – Ecommerce applications integrating bLoyal into their ecommerce/web store system as a product integration intending to be reused as a product. This is to enable in-flow promotions, loyalty accruals and benefits within the Ecommerce system cart. Orders can also be submitted to bLoyal for fulfillment via any of the bLoyal integrated BackOffice applications and fulfillment houses. See the bLoyal-Ecommerce-Integration-Guide for more detailed information.
- **BackOffice Application Vendors** – BackOffice applications or 3rd party analytics systems needed to update data in bLoyal or pull sales transactions from bLoyal.



3. API Integration Options

bLoyal provides the following three integration options depending on your integration use case.

1. **bLoyal Snippets™** – bLoyal snippets provide a simple way to add bLoyal functionality to any web site or POS system with minimal or no development. Snippets are mobile responsive and are designed to work with any web or POS system. The functionality of a snippet is fixed and part of the bLoyal product but there is some configuration the client can do for enabling and disabling fields, etc... bLoyal provides the following two types of snippets:
 - **Web Snippets** – A web snippet can either be a snippet of HTML a designer adds to a web site or a link to a bLoyal hosted page. The latter “Hosted” snippet provides advanced functionality without any programming while still enabling the web designer to have total control over the design of the snippet container.
 - **POS Snippets** – POS snippets provide an easy way to provide cashier specific bLoyal functionality to a POS system with minimal development. This includes customer signup, global customer editing, club member signup, and support of POS shipping and pickup orders. The POS snippets work in consulting with the LoyaltyEngine.svc web service.
2. **bLoyal REST API** – The REST API provides web developers with programmatic access to any data associated with snippets so that you have full control over the design, flow, and hosting of a client’s web site while leveraging the bLoyal platform for loyalty and order processing.
3. **bLoyal Web Service API** – The web services are intended to be used by application vendors to integration bLoyal into an application. These web services enable you to add the bLoyal loyalty and promotions engine in-flow of a transaction, process gift cards, and synchronize data between systems using the bLoyal Channel Hub™. The web services provide more functionality than the REST APIs do and are intended to be used by application vendors and system integrators.

Note: *Integrations using the bLoyal Web Services need to be certified with bLoyal.*



4. REST API Overview

The bLoyal REST APIs expose entities (resources) via standard URIs. You get an entity resource using an HTTP GET, update an entity using a HTTP PUT, and add a new entity using a HTTP POST.

Most of the REST API does not require a separate web service user account. They are limited by what an individual customer (e.g. shopper) can do. The REST APIs are enabled for a client via the Store configuration in client's Loyalty Director account and accessed using the following URL

[https://api.bloyal.com/\[Company\]/\[StoreCode\]](https://api.bloyal.com/[Company]/[StoreCode])

The REST API contains the following three types of resources.

Customer Resources	<p>The customer resources enable you to login customer (e.g. shoppers) and get and set customer data for the logged in customer.</p> <ul style="list-style-type: none">• /CustomerSession – The customer session resource is used to log in a customer and get some basic information about the customer such as whether programs or clubs they are a member of.• /Customer – The customer resource contains all the information about a customer. It requires that the customer be logged in to access.• /Balances – Returns the gift and loyalty balances for a balance check page on a web site.
Cart Resources	<p>The cart resources enable you to programmatically use the bLoyal shopping cart without any of the cart snippet UI. I.e. you can leverage the bLoyal cart processing with your own UI.</p> <ul style="list-style-type: none">• /ShippingOptions – Returns the shipping options available for the store.• /Cart – The Cart resource contains all the entities related to a shopping cart.
Product Data Feed Resources	<p>The product "Data Feeds" REST API provides real time access to product inventory, pricing, content, and catalog data to be used on web site or mobile device. The product data feeds contain the following resources.</p> <ul style="list-style-type: none">• /Catalogs –A list of product catalogs that are available for the store.• /Catalog – Details about a specific catalog and catalog sections. This can return the catalog navigation for a web site as defined in the client's Loyalty Director account.• /Departments – The departments and categories.• /Products – Each of the products in summary or detail form.• /Inventory – The product inventory available for a specific product. <p>The product data feeds are not intended for product replication. To sync products to/from bLoyal and another system use the bLoyal Channel Hub™ web service.</p>



5. Web Service API Overview

The bLoyal Web Service API provides programmatic access to the bLoyal engines using SOAP web services. These are used to develop certified application connectors for bLoyal.

There are 4 web services available for you to use depending on which part of the bLoyal platform you wish to include with your application.

<p>Channel Hub™ (ChannelHub.svc)</p>	<p>The bLoyal Channel Hub is a highly scalable an integration service provided by bLoyal that synchronizes key data between bLoyal and 3rd party applications. The Channel Hub makes it easy for channel application vendors (e.g. POS and Ecommerce applications) to omni-channel enable their applications. The Channel Hub takes care of most of the heavy lifting required to synchronize data between systems and automatically handles resolutions utilizing bLoyal's patent pending Dynamic Resolution Technology™. The data that can be synchronized includes:</p> <ul style="list-style-type: none"> • Product and Inventory data • Product Catalogs • Customers • Club Memberships • Sales Transactions • Orders • Reference Entities - Various other entities
<p>Loyalty & Promotions (LoyaltyEngine.svc)</p>	<p>The Loyalty Processing web service provides the methods required to incorporate the bLoyal loyalty and promotions engine into any application. These are exposed using the ws.bloyal.com/3.5/LoyatyEngine.svc web service. The key areas for this web service API are below.</p> <ul style="list-style-type: none"> • Calculate and Submit Sales Transactions – These web service methods enable you to embed the loyalty and promotions engines in-flow of the transaction for discounts, offers, and loyalty benefits. • Visit Transactions - These web service methods enable you to get the visit types available for a device (e.g. POS register or Ecommerce store) and record visit transactions with bLoyal. • Gift and Loyalty Processing as a Tender – These web service methods enable you to add bLoyal gift and loyalty processing as a tender.
<p>Order Processing (OrderEngine.svc)</p>	<p>The bLoyal Order Processing web service enables you to submit shipping and pickup orders to bLoyal for processing.</p>