July 2021

Spryker Storefront API (GLUE)

2021 Spryker System GmbH
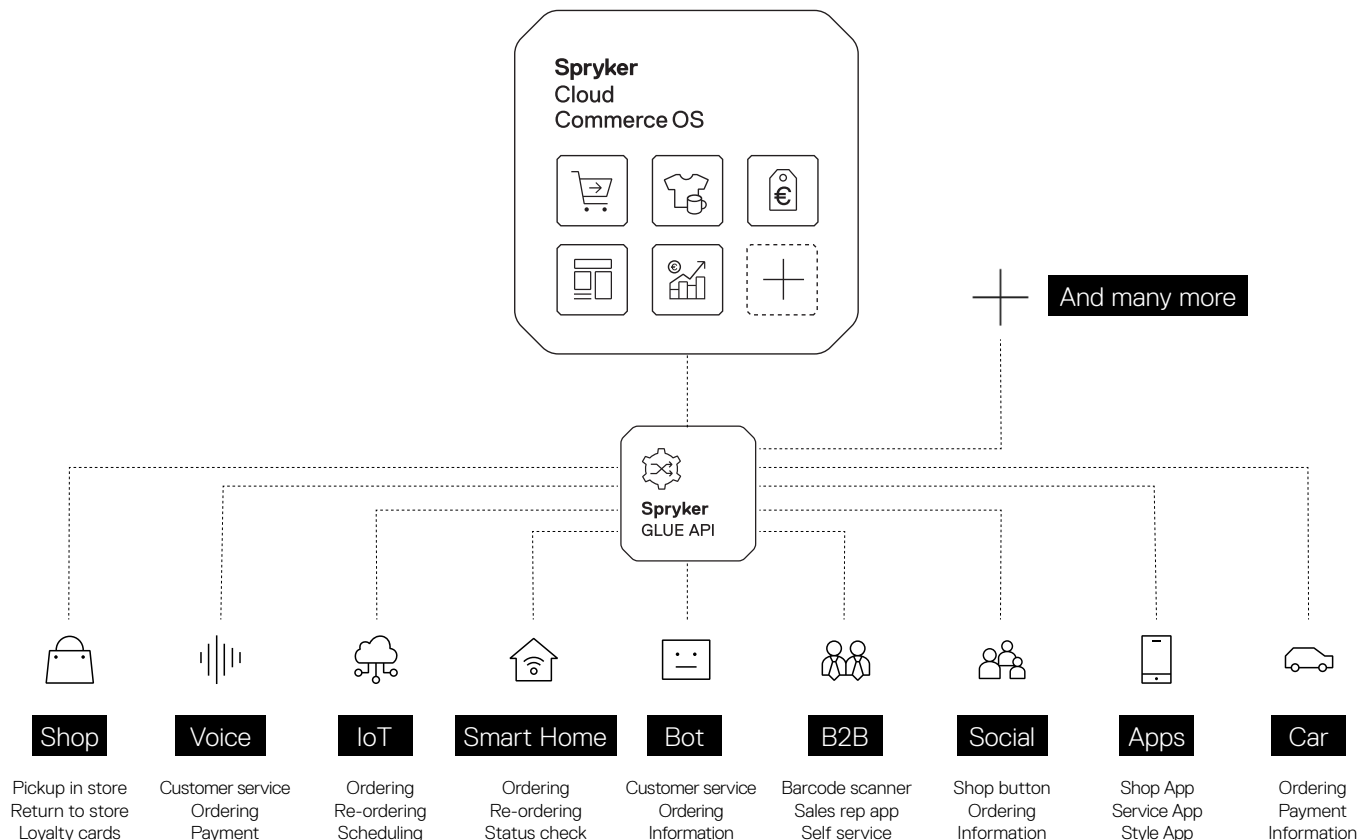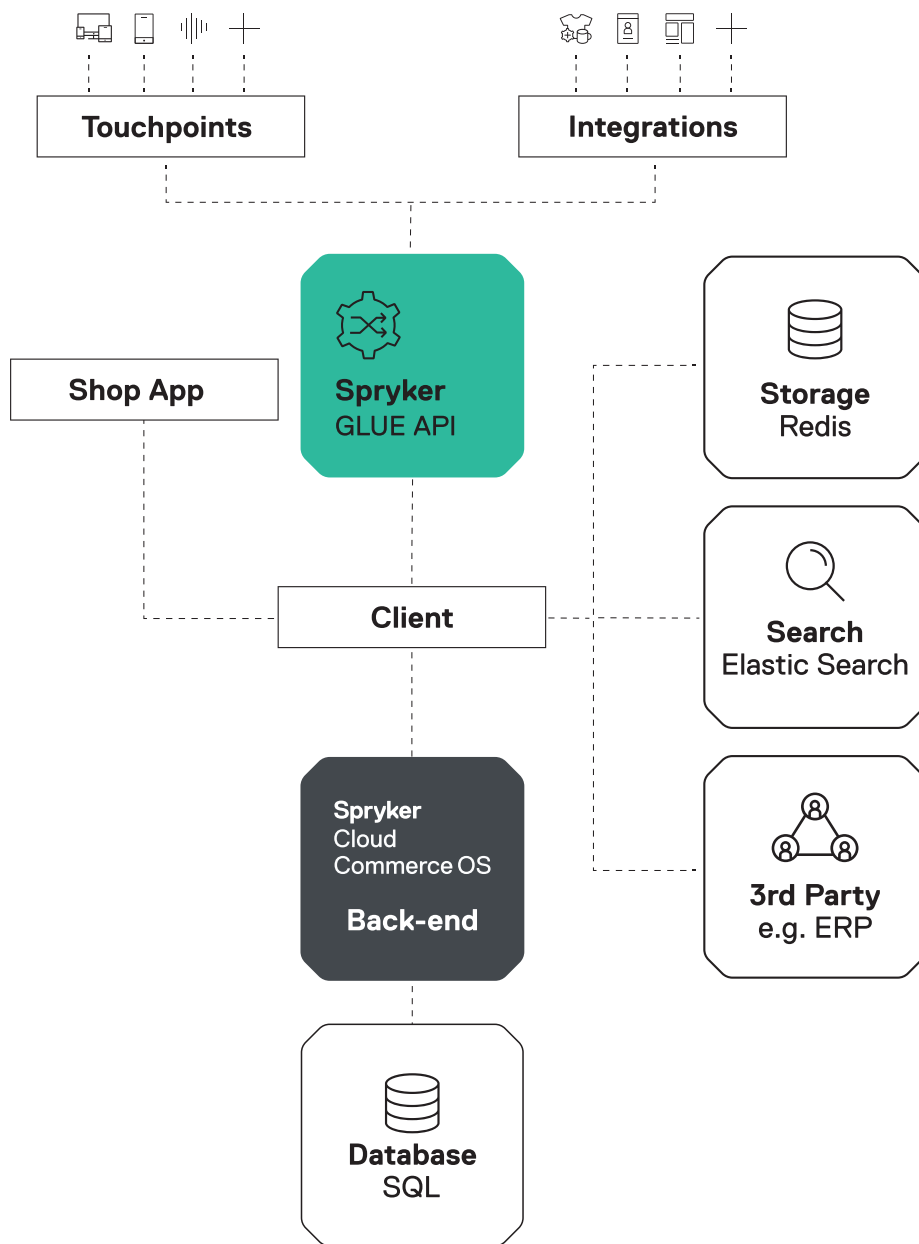spryker.com

Spryker

Content

What are APIs

An API is a computing interface that acts as an intermediary to transfer information between multiple applications. Integration between systems completely different i n n ature, d ata s tructure, p urpose o r programming language is possible through APIs. They enable the connection between all existing technologies.

Application Programming Interfaces (APIs) are paramount for the current digital commerce revolution. In the context of e-commerce, APIs allow for fast and safe information exchange, and this creates a more seamless customer experience. They are a vital element of your Unified Commerce strategy, as they support the delivery of a unified user experience.

Reach your Customers across the Main Touchpoints They Use and Provide a Seamless Experience

**Spryker
Cloud
Commerce OS**

And many more

**Spryker
GLUE API**

Shop	Voice	IoT	Smart Home	Bot	B2B	Social	Apps	Car
Pickup in store	Customer service	Ordering	Ordering	Customer service	Barcode scanner	Shop button	Shop App	Ordering
Return to store	Ordering	Re-ordering	Re-ordering	Ordering	Sales rep app	Ordering	Service App	Payment
Loyalty cards	Payment	Scheduling	Status check	Information	Self service	Information	Style App	Information

Spryker's Storefront API Principles

- — APIs are designed with a focus on the entire journey and not only on a single touchpoint.
- — APIs are designed and developed with the value to the customer in mind.
- — The APIs are an extension of your selected business capabilities.
- — We follow an API-based approach.

- — The Unified Commerce dimension is taken into consideration and many of our endpoints enable easy integration with other systems.
- — We aim for a maximum request efficiency.
- — We provide you with a way to retrieve relevant data needed to build various front-ends..
- — We aim for operational simplicity.

What is JSONAPI?

In order to ensure robustness, reliability and performance of APIs, several specifications, design styles and standards are broadly accepted by the software development community. Among those Spryker applies is the JSONAPI.

JSONAPI is a specification for building APIs in JSON. It's a specification for how a client should request that resources be fetched or modified, and how a server should respond to those requests. JSONAPI is designed both to minimize the number of requests and the amount of data transmitted without compromising readability, flexibility and discoverability.*

Why do we use JSONAPI?

In comparison to other standards and specifications, the JSONAPI provides remarkable gains in the following aspects:

— **Request Efficiency**: With a single request you can retrieve everything that you need for your chosen representation. The response can be customized in order to provide you with the exact data you need.

— **Good Documentation:** Links and error messages self-document your API and provides a generic schema. In Spryker's case, we enable documentation to be self generated from the existing source code in OpenAPI standard format.

— **Simple Operability:** Out-of-the-box works well with CDNs and reverse proxies.

— **Strong Writing Capabilities:** Bulk operations can be enabled.

* Source jsonapi.org

The Concepts that Glue API follows

Versioning

Spryker's APIs have no versions, because our modules already do, which makes versioning of APIs redundant. It will always be backwards compatible using a never remove, only add strategy.On a project level you can use a version that is more optimal for your development.

At Spryker, we continuously develop new features and have product releases scheduled every year. New features are available for use the moment they are released. According to our API contract we apply the following rules:

— No values or fields will be changed or deleted .
— Changes will add data in order to enable you to cover additional use cases of your customer journey:
  — New attributes, that expand the API response objects.
  — New relationships that allow you to cover more representations with a single request.
  — New API endpoints.
  — Additional HTTP actions for existing endpoints.

Deprecation

Spryker modules and the provided functionality constantly evolve in order to keep you competitive and meet your customer's expectations at any give moment. Some API endpoints can be totally or partially improved by newer implementations. In case this happens, you shouldn't use them anymore. In case of deprecation we will communicate it in timely manner and identify such endpoints as deprecated.

Authorization

The APIs requests require a valid authorization token for protected resources.
We use OAuth 2.0 Authorization Framework.

Identifiers

Most of the resources are identified by a unique identifier ID. The ID is generated by Spryker when the resource is created in the system.

Additionally, some of the resources contain a key identifier as well, which uniquely identifies them. In this case, it can either be self-generated or custom-added.

Read-after-write Consistency

When we use a post or patch request to create a new resource or update an existing one, the response of the new or updated resource is provided together with the success code.

Concurrency Control

We are working with Etag HTTP Headers. Etag Headers enable you to handle concurrent requests and avoid data loss from your customers.

API (GLUE) Features

Product Management

Product Browsing and Up-selling

Group your products into sets and allow your customers to browse through 'Shop-the-Look' collections.

Availability

You can clearly define timeframes for the availability of products, without having to manually manage the inventory.

Tax Sets

Determine country-based tax rates for products, options, and shipments that will automatically be applied to the respective shops.

Alternative Products

You can easily define a list of Alternative Products that will be suggested to your customers if for any reason the selected item is not available.

Product Details

To highlight details on the product, options, variants, warranties or images you can visit the Product Detail Page with all the relevant information.

Images

Make your shop more appealing and give your customers a better idea of what they are buying with images and image sets.

Measurements Units

Spryker allows you to offer your products in a variety of different Measurement Units like length, weight, or volume.

Product Bundles

Freely tie individual items together and sell them together as a product bundle.

Product Variants

Products can come with multiple Variants, such as size or color and are grouped under an Abstract Product.

Ratings and Reviews

Your customers can easily review your products through a free-text function or via star ratings.

Related Products/Up/Cross-selling

Product Relations let you define a list of items that will be displayed as comparable or additional products.

Promotions

Make your shop more appealing and give your customers a better idea of what they are buying with images and image sets.

Configurable Products

Configurable Products allow your customers to individually configure the product to their liking.

Prices

Incorporate your pricing strategy into your Commerce OS effortlessly and manage costs, currencies as well as gross and net prices.

Labels

Assign Product Labels to highlight specific products in your shop, such as 'Sale' for reduced prices or 'New', for products that were recently added to your shop.

Customer

Login

A customer can simply login with an e-mail address and a password.

Manage Account

In the Back Office you can view and edit customer account details and check their orders and order history.

Manage Passwords

The Shop Owner can set the minimum length of the password and the special symbols/ letters needed to have a legitimate password.

Payments

External Payment Service

The Spryker Cloud Commerce OS offers integrations with several payment providers that can be used in the checkout and order management.

Gift Cards

Customers are allowed to purchase and redeem gift cards.

CMS

Show Navigations Menus

Display a hierarchical navigation for any existing navigation tree.

Show Content Banners

CMS page banners with selected content can be used.

CMS Sliders

A basic CMS page structure with sliders can be displayed.

Search

Search for products and categories

Customers have the opportunity to search all products, categories and CMS pages with powerful search functionalities.

Suggestions

The Autosuggest-functionality proposes on-the-fly page suggestions for products, categories or CMS Pages.

Browse Categories

Easily define if categories should be searchable or hidden and thus will or will not appear in your shop or search.

Carts & Checkout

Anonymous Users

Freely browse the shop as a visitor who hasn't logged in or registered yet.

Carts

Allow your customers to easily add products, organize, and manage their purchases.

Guest Carts

Start shopping as an unregistered visitor and keep the content of your cart after your registration and login.

Checkout

A smooth shopping experience and customized checkout workflow for your customers.

Apply Discounts to Carts

Discount rules, vouchers and coupon codes can be applied to your carts.

Shipment and payment methods

During the checkout process your customers can easily select their preferred shipment method and related carrier.

Order Management

With the compact Order Management features you can easily keep your order processing running smoothly.

Customer Returns

Manage your returns in the Back Office by creating, viewing, refunding, canceling the returns, or printing the return slips.

Wishlists

Enable your customers to track and save the products they wish to purchase through a Wish List function.

Add to Wishlist

Customers can directly add items to their wish list

Double Opt-In

A double-opt-in option ensures that the registration process follows all necessary GDPR requirements.

Back in stock notifications

Let your customers sign up for an automated notification for any product that may be available again, be it any discontinued or out-of-stock item.

B2B

Company User

Companies can create several users that can operate within the company account.

Companies

The Spryker Cloud Commerce OS lets your customers accurately model their business structure in the Webshop in order to reflect their hierarchy, roles, permissions, purchasing process, and anything else they need to smoothly buy from your shop.

Business Units

The Business Units define the different locations, entities or departments your customers want to reflect inside their Company Account.

Business Roles

The Spryker out-of-the-box solution offers two default User Roles: Administrators with full access to all functionalities, and Buyers, who have full purchasing power.

Agent Assist

With the Agent Assist feature, you can allow your Sales Agents or Customer Care employees to support customers in their purchasing process.

Multi Carts

Your customers can save and name multiple Carts in their account.

Shared Carts

Your customers can share a Cart with users in their department or a lower ranking Business Unit.

Cart Permissions

A user can be the owner with full editing and sharing power, can have editing access which only excludes sharing options or have a read-only permission.

Shopping List

Business users can create multiple named Shopping Lists to prepare and manage their regular orders with ease.

Multi Shopping list

Help your customers track and save items for later purchase through multiple Wish Lists, which are connected to user accounts.

Marketplace

Merchant Profile

To learn more about an individual Merchant customers can visit the Merchant Profile page, where they can find additional information about the Merchant, like contact information, ratings, and reviews.

Search for products and categories by Merchant

Your customers can also browse, search, and filter the product and catgories by Merchant.

Merchant Offers on PDP

Offers for products can be displayed in the product detail page.

Merchant offers in Carts and Checkout

Customers can put Merchant offers in their cart and checkout.

Marketplace Order Details

Merchants can keep track of all orders of their customers.

Product Offers Volume Prices

Volume discounts can be applied to offers to encourage customers to purchase larger quantities.

Merchant Products and Offers in Wishlists

Wishlists can contain Merchant products and offers.

Merchant Order Returns

Merchants can access and manage their order returns.

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About Spryker

Founded in 2014, Spryker enables companies to build sophisticated transactional business models in unified commerce including B2B, B2C, and Enterprise Marketplaces. It is the most modern platform-as-a-service (PaaS) solution with headless & API-based architecture that is cloud and enterprise-ready and loved by developers and business users worldwide. Spryker customers extend their sales reach and grow revenue with a system that allows them to increase operational efficiency, lower the total cost of ownership, and expand to new markets and business models faster than ever before. Spryker solutions have empowered 150+ companies to manage transactions in more than 200 countries worldwide. Spryker is trusted by brands such as Aldi, Siemens Healthineers, Hilti, and Ricoh. Spryker was named the most innovative and visionary of all new vendors in the 2020 Gartner Magic Quadrant for Digital Commerce and named a major player in B2B e-Commerce by IDC and is the only commerce platform to provide full B2B, B2C, D2C, and Marketplace capabilities out of one stack. For more information about Spryker please visit Spryker.com.

Do you have feedback for us?
Please feel free to contact us!

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