



Spyker Cloud Infrastructure and Tooling Catalog

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June 2023

Introduction

Spryker's Cloud Infrastructure and Tooling enables Spryker customers to develop, run and manage their Spryker application without the complexity of building, scaling, and maintaining the infrastructure.

To achieve this, Spryker has built and incorporated multiple features that allow organizations to benefit from Spryker's inherent agility, security, and flexibility.

The Spryker Cloud Infrastructure and Tooling Catalog offers an overview of these features, along with details of each, to demonstrate how Spryker Cloud Commerce OS can help your business thrive.



Automated Deployment and Release Management

What

Streamline your software delivery processes with automatable Deployment Pipelines. Ensure faster, more reliable updates that enhance customer experience and increase satisfaction.

Details

A smooth developer experience requires a CI/CD pipeline that automates and quality checks throughout the software development lifecycle, ensuring velocity is balanced with delivering a great product. Spryker Cloud Infrastructure provides managed CI/CD pipelines, removing significant toil from your business. Staff no longer to spend significant amounts of time undertaking maintenance, allowing them to work on new capabilities.

Features

- Deployment Pipelines

Deployment Pipelines

Provides automated CI/CD workflows that enable your teams to continuously integrate and deploy their Spryker containerized solutions in a self-service manner.



Cloud Infrastructure Configuration

What

Utilize advanced capabilities to streamline your development processes and improve agility and competitiveness.

Details

With Spryker's platform, your teams can quickly and easily deploy new services, test applications, and experiment with new technologies. This allows for faster time-to-market, increased productivity, and improved team collaboration.

Features

- Third-party DNS Provider
- Setting up a Custom Domain
- Asynchronous Jobs as Commands
- Management of Environment Variables and Secrets
- Maintenance Mode

Third-party DNS Provider

Allows your teams to integrate a third-party DNS server and the freedom to manage your DNS records while still using Spryker services for your application. Spryker's platform provides a seamless integration between Spryker resources and the third-party DNS server.

Setting up a Custom Domain

Leverage AWS Route53 capabilities to provide Domain name management, DNS hosting and Zone delegation.

Asynchronous Jobs as Commands

Provides your team with the ability to:

- run scheduled background jobs so certain commands are performed at a specific time.
- run a one-time-job to perform specific actions, e.g. Data Migration (import/export).
- run code as a console command to troubleshoot business functionalities and perform one-time actions (eg: manually sync data after a fix; manually re-run some import process).

Management of Environment Variables and Secrets

Offers your team an easy self-service method for autonomously managing environment variables and secrets at runtime without raising a support ticket. Changes take effect immediately or on the next deployment without requiring environment resources reprovisioning.

Maintenance Mode

Switch your application to maintenance mode without any unnecessary overhead or needing to contact Spryker Support.

This satisfies several use cases, including:

- Enables maintenance mode for the environment in case of a system update or a new codebase version rollout.
- During a beta-testing phase, enable maintenance mode but whitelist specific IP addresses for staff who should have access, such as QA engineers.

Moreover, the feature supports a custom maintenance page to be presented to visitors during maintenance mode.



Built-in Security

What

Offers extensive protection for customers' data and applications utilized via the Spryker platform.

Details

Spryker provides comprehensive protection and 24/7 availability for your data and applications. With built-in DDoS protection, web traffic protection, intrusion detection, vulnerability management, and end-to-end customer data protection, Spryker ensures your business information remains confidential and secure at all times. Additionally, the platform's use of industry-standard security measures such as SIEM and machine learning-based threat detection allows for proactive monitoring and improved security. Through these solutions, Spryker allows your team to focus on core business operations.

Features

- DDoS Protection
- Web Traffic Protection
- Intrusion Detection
- Infrastructure Patch Management
- Customer Data Protection
- Custom SSL Certificate

DDoS Protection

Provides DDoS protection as a critical feature and offers a baseline level of protection by default. Spryker also offers the flexibility to increase protection - through third-party integrations, for example - and tailor your solution to specific business requirements.

Web Traffic Protection

Utilizes Web Application Firewall (WAF) technologies to help protect your business against common web exploits and bots that can affect availability, compromise security, or consume excessive resources. Spryker Cloud Infrastructure provides built-in WAF to provide baseline rules that can be extended and customized dependent on your business needs.

Intrusion Detection	Relieves your team from the burden of maintaining effective security by providing an automated threat detection service that helps your business stay ahead of potential security threats. Data traffic across your environments is continuously monitored and analyzed to identify potential security threats. By leveraging machine learning techniques and threat intelligence, Spryker Cloud Infrastructure can detect a wide variety of suspicious activity, including unusual API calls, compromised instances, and reconnaissance activity.
Infrastructure Patch Management	Provides an automated, customizable patch management feature for the entire Spryker Cloud Infrastructure. This feature is flexible, allowing you to choose when patches are scheduled and how they are applied to avoid disrupting your business and development needs. Additionally, Spryker Cloud continuously performs scanning of containerized workloads to detect security misconfigurations, ensuring strong security and shielding against known vulnerabilities.
Customer Data Protection	<p>Provides end-to-end protection for your data, both at rest and in transit. Data is encrypted:</p> <ul style="list-style-type: none"> - at rest using AES-256 encryption - in transit using TLS1.2/1.3 encryption <p>both providing secure communication between servers and clients.</p> <p>This ensures that your data remains confidential and secure, even if there is a breach in the system. This high level of security ensures that your business sensitive information is protected at all times.</p>
Custom SSL Certificate	<p>Enables your tech team to create a custom SSL certificate, allowing them to safely deliver content using a customer domain and a bespoke SSL.</p> <p>Custom certificates are either provided and managed by the Certificate Manager embedded in Spryker Cloud Infrastructure or your team can use the Bring Your Own Certificate (BYOC) service, allowing upload of your company's private key & certificate for any of your custom domains. This allows your company to obtain your SSL certificates from other certificate authorities and use them on the Spryker Cloud Infrastructure.</p>



Comprehensive Monitoring

What	Ensures optimal observability of performance and availability for all transactions via your platform.
Details	Monitoring is a crucial feature for any business. The Spryker platform provides APM (Application Performance Monitoring) capabilities so your business can design bespoke dashboards to identify performance bottlenecks, track response times, and pinpoint errors. At any time, Spryker customers can monitor the performance of their sophisticated applications to ensure they are delivering a reliable, fast, and smooth user experience.
Features	- Integration with New Relic Application Performance Monitoring
Integration with New Relic Application Performance Monitoring	<p>Application Performance Monitoring (APM) provides a unified monitoring service for all your business applications and transactions.</p> <p>Spryker Cloud Infrastructure, via native New Relic APM integration, allows the flexibility to monitor the items that matter most to your business whilst keeping track of your app's health in real-time through monitoring Metrics, Events, Logs, and Transactions (MELT).</p> <p>Integration with New Relic Application Performance Monitoring is not part of Spryker's base offering and is an optional additional feature.</p>



Scalable by Design

What

Rapidly respond to market changes, take on new opportunities, and meet increasing demands with a scalable platform.

Details

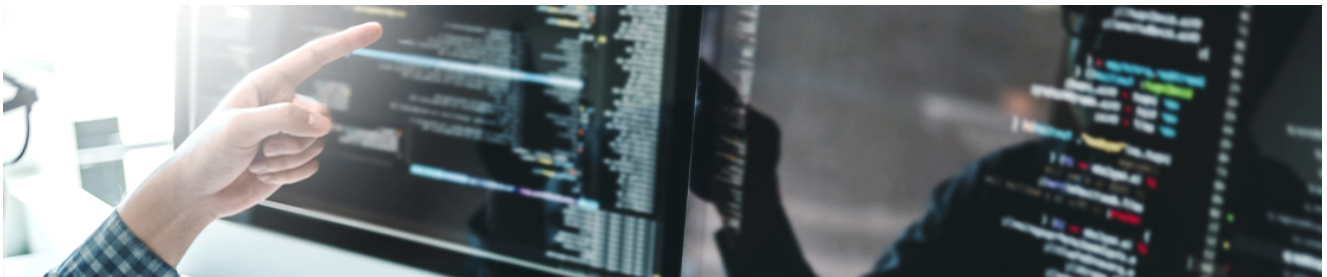
Effortlessly scale your e-commerce infrastructure during peak periods and promotions with our autoscaling solution. Spryker ensures your platform can handle spikes in traffic, big data transactions, and complex business processes, offering customers a seamless experience without any downtime or performance issues.

Features

- Service Scalability

Service Scalability

Spryker Cloud Infrastructure uses AWS Container Services to allow the deployment, management, and scaling of containerized applications in the cloud. Spryker has full control over scaling policies to automatically adjust the number of container instances based on demand, without concern for the underlying infrastructure managed fully by AWS.



Data Resilience and Recovery

What

Ensures data availability and quick recovery in case of an outage, minimizing data loss and maintaining your business continuity.

Details

Even in the face of unforeseen circumstances - such as hardware failure, software errors, natural disasters, or cyberattacks - Spryker Cloud Infrastructure ensures that business operations continue uninterrupted, customers' trust is maintained, and regulatory compliance is met. By maintaining multiple copies of data across different geographic locations, automating backups and enabling fast recovery, your business can be confident that its data is always protected and quickly restored in case of a disruption.

Features

- Create and Restore Database Backups

Create and Restore Database Backups

Provides automated database backups, including:

- transaction log backups via AWS Point-In-Time Recovery.
- monthly snapshots with a default retention of 90 calendar days.
- hourly snapshots with a default retention of 35 calendar days.

In addition, Service Restore is provided, offering the Recovery Point Objective (RPO) of one (1) hour and the Recovery Time Objective (RTO) of 72 hours. Restore activity assumes data recovery from the latest backup and recreating the infrastructure. Additional activities by you, your team, or your business may be required to fully restore the service (such a. setting up third-party integrations, recreating indexes for search service, etc.). The scope depends on the particular implementation and is assessed by your team during project implementation.



Open Connectivity

What

Expand your business capabilities by easily connecting external systems with SCCOS.

Details

The Spryker platform is open and composable so your company can connect external services to your platform environments hosted in Spryker's Cloud Infrastructure. Supported connectivity methods allow integrations from:

- a separate AWS account
- on-premise hosted services
- non-AWS cloud services

This feature satisfies several use cases, including:

- the use of an external PIM system that propagates product and price data into a Spryker-based shop
- integrations with a third-party API Gateway as a central hub for any connectivity to external systems.

Features

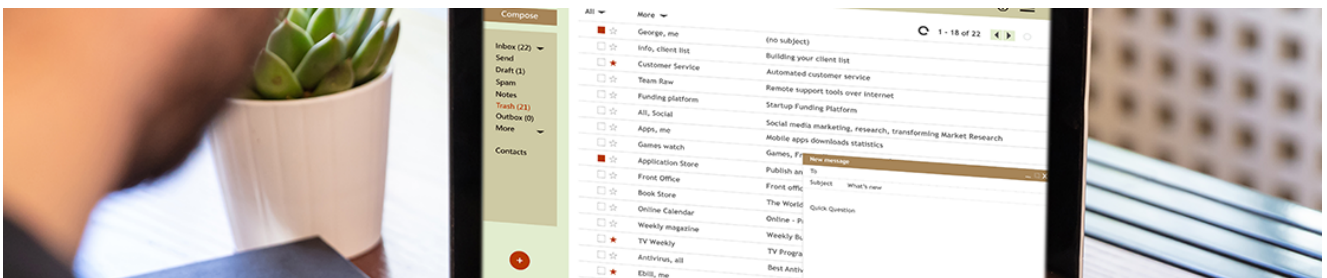
- Amazon VPC-to-Amazon VPC Connectivity
- Network-to-Amazon VPC Connectivity

Amazon VPC-to-Amazon VPC Connectivity

Utilize AWS-provided network connectivity between two different Virtual Private Clouds (VPCs) in the same region. Leverage an AWS-managed scalable networking infrastructure via an optimal method of connecting multiple VPCs securely and efficiently.

Network-to-Amazon VPC Connectivity

Support remote network connections to your Spryker Cloud Infrastructure. Enable your business to integrate already existing services (such as monitoring, authentication, etc) by extending your internal networks into the Spryker network.



Database Setup

What

Enhances performance, scalability, and flexibility for Multi-Store to deliver a superior customer experience.

Details

Digital commerce transactions involve a wide range of data types and models, including customer, product, inventory, and order data, all of which can be challenging to manage efficiently and effectively.

A multi-logical database provides enhanced performance, availability, scalability, and flexibility, as well as better data management capabilities, allowing your digital commerce platform to manage large volumes of transactional data and provide a seamless experience for customers.

Features

- Separated Database

- Shared Database

Separated Database

Utilize separated databases for different applications or different parts of your business. This setup allows:

- easily scaling each database independently as needs evolve.
- ensuring flexible deployment of a database without affecting transactions supported by other data domains.
- enabling more flexible management in configuring business transactions.

Shared Database

Utilize a single database when not needing to follow split business logic or having insignificant differences. This offers an optimal solution for non-complex scenarios where simple collaborative management is key.



Development Environment

What

Offers all of the benefits of a local development alongside all of the perks of a live environment.

Details

Spryker Cloud Infrastructure allows your tech teams complete control over the development environment with no dependency on internet connectivity after installation, enabling them to work offline. The environment contains performance improvements with caching and reduced resource consumption, making it easy for developers to troubleshoot issues and test results.

Features

- Multiplatform Support
- Optional Services
- File Synchronization

- Customizable Docker Images
- Debugging and Testing Mode Support
- Multiple Versions of Backing Services

Multiplatform Support

Spryker's Docker SDK provides a convenient and configurable Docker-based environment for local development of Spryker projects. Developers can set up a consistent environment across different machines and operating systems with various architecture types.

Optional Services

Allow developers to customize their Spryker instance by choosing only the required services, resulting in a more efficient, tailored, and resource-conscious development environment.

The Optional Services feature reduces resource consumption, optimizing the overall performance of work station.

File Synchronization

Enable developers to sync files between the local machine and the docker environment, ensuring fast and efficient file operations during development. Spryker Docker SDK supports a variety of file synchronization methods, including Mutagen or docker-sync.

Customizable Docker Images

Allow for flexibility and tailored development environments with Customizable Docker Images. Developers can use custom PHP or Nginx images and add extensions or libraries to meet their unique project requirements.

Debugging and Testing Mode Support

Gain two important benefits through Spryker Docker SDK:

- Debugging support through X-debug. This facilitates the debugging process during local development.
- Support for testing using Webdriver and Codeception. This allows developers to automate and execute tests for Spryker projects within the local development environment and the ability to include them in the CI.

Multiple Versions of Backing Services

Enhance the flexibility, compatibility, and testing capabilities of local environments by supporting and managing multiple backing services with different versions. Take advantage of a more robust and realistic development environment that aligns with project requirements and facilitates efficient system integration. This also simplifies the process of managing and switching between different versions of services if needed.

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 enterpriseready 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 Toyota, Siemens, 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](https://spryker.com).

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