HCL Commerce

The Transaction Platform that Helps You Sell More

HCL Commerce is available on HCL Now so you can get commerce cloud-native-as-a-service. Take advantage of the latest capabilities in HCL Commerce and focus on driving business results while our experts take the burden of managing the platform, reducing your risk and costs without locking you in to a cloud solution.

Our technology choices are guided by the Cloud Native Computing Foundation and our cloud-first architecture allows you the freedom to deploy anywhere, the power to innovate, and the flexibility to scale at will. Take advantage of these benefits:

1. Go cloud native now - Cloud-first architecture that allows the freedom to deploy anywhere, power to innovate, and flexibility to scale on a dedicated environment.

2. Multi-cloud choice with no vendor lock-in - SoFy is intentionally cloud-agnostic and can run on any Kubernetes platform: Migrate across cloud platforms, implement a multi-cloud strategy and run on any cloud such as Google Anthos, Amazon Elastic Kubernetes Service (EKS), or Red Hat OpenShift Container Platform.

3. Single-Tenant Cloud-Native Model, Control is Key - We believe in single-tenancy to give clients the most control of their applications, processes, and data while retaining the benefits of SaaS. Each hosted system is customized to suit the needs of the client, from the choice of cloud to the degree of access and control provided to the client operations teams.

4. Experts On Demand - Rest easy and leave the burden to us. Reduce risk and cost as you move to cloud native with our Kubernetes and product experts.

Digital Commerce Is Transforming How Business is Done

How companies go to market is rapidly changing in today's world and your digital strategy is playing an even more important role in the success of your business. Market changes happen rapidly, competitors can introduce innovations without warning, requiring a modern commerce platform that is adaptable, innovative, agile and enterprise grade, that supports every business model, B2B, B2C or B2B2C, so they can succeed in this fast-changing world.

HCL Commerce is designed to adapt to your business strategy, not the other way around, helping your commerce experiences lead the pack instead of having to follow the herd with a templated approach. With HCL Commerce you can support the individuality of your brands, as well as pivot to address current and future business needs quickly and elegantly so you can grow with confidence and deliver a consistently inspiring experience.

Key Benefits

Innovate more in less time with a modern, cloud ready, extensible architecture	**Drive market share** by taking advantage of unmatched omnichannel commerce capability	**Save time and cost** by reducing dependency on IT with easy-to-use business user tools
Improve customer experience with personalized interactions across all touchpoints	**Enhance your capabilities** with a broad ecosystem of HCL and third-party commerce services	**Support for both B2B, and B2C and B2B2C** use cases

Key Differentiators

Performance & Security
Performance is not a bolt on... It's core to the platform... It's our DNA. We provide a secure and highly scalable solution for our customers – some even seeing see 40k+ orders an hour during peak buying times – so they can rest easy.

Resilience
HCL Commerce is architected around resiliency. At any moment in time, unplanned events arise, and ecommerce traffic can spike. For these scenarios, our customers rely on HCL Commerce to stay up and running.

Versatile
Any business model on a single code base, single catalog, across multiple geographies or brands. When you need to pursue new growth opportunities, HCL Commerce is ready to support you with the speed and agility you need to capitalize.

Open and Extensible
Need a platform where the brand can be differentiated among the competition? With HCL Commerce's API-first robust extensibility framework, you can separate your brand from the pack with the customizations your business needs.
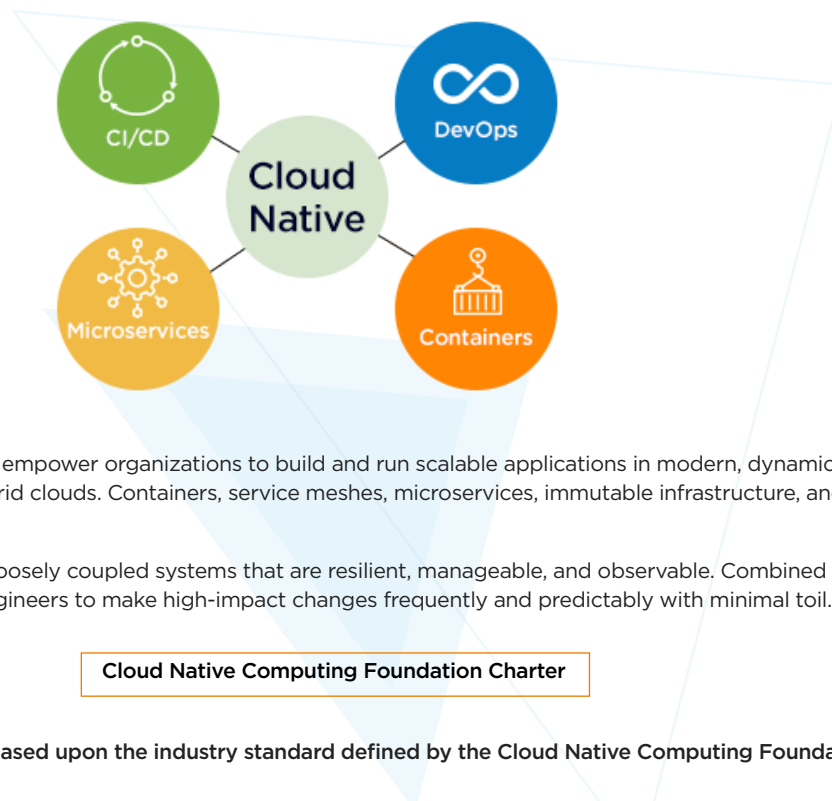
Cloud Native
With a cloud native approach, our customers are able to deploy the way they want, on-premise, public cloud or a hybrid model, without sacrificing innovation or speed and lowering their total cost of ownership.

Control
Our customers are empowered to build amazing customer experiences that differentiate their brand, engage their customers and ultimately sell more – and they can do it faster.

Architecture

> " Cloud native technologies empower organizations to build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds. Containers, service meshes, microservices, immutable infrastructure, and declarative APIs exemplify this approach.
>
> These techniques enable loosely coupled systems that are resilient, manageable, and observable. Combined with robust automation, they allow engineers to make high-impact changes frequently and predictably with minimal toil. "

Cloud Native Computing Foundation Charter

HCL Commerce is cloud native based upon the industry standard defined by the Cloud Native Computing Foundation and these four pillars:

- **Continuous Delivery** describes a process which when adopted, enables developers to release applications more quickly, reliably and frequently, while reducing the risk and increasing the quality.

- **DevOps** describes a process for software developers and IT operations professionals to collaborate better in order automate the process of software delivery.

- **Micro-services** is an architectural approach to building an application by delivering it as a collection of small services that run independently and communicate via APIs.

- **Containers** provide the ability to manage and migrate the application dependencies along with the application while abstracting away the OS and the underlying cloud platform in many cases.[1]

Continuous Delivery
Through the use of separate Docker containers for store, search, transactions and client customizations that fully encapsulate application logic, middleware and the operating system layer, clients are themselves empowered to deploy applications via continuous innovation/continuous delivery since these images mean less manual work, allowing you to install and upgrade faster and deploy customizations in an automated way and giving the client a lower cost of ownership for their commerce platform.

DevOps
HCL also leverage Docker to make the set-up, deployment and management of commerce environments quick and easy so developers and deployment engineers (IT Operations) can configure development, test and production environments in a matter of hours with minimal manual processes and intervention. Docker images make cloning new instances fast and error free, and consuming HCL provided commerce system enhancements seamless, giving businesses the agility needed to seize market opportunities, launch new sites and innovate the customer experience faster than ever before. We also provide deep support services with extensive experience helping clients establish a cloud native architecture and organization to get the most out of their HCL Commerce (and other Docker-based) platform.

[1] https://medium.com/velotio-perspectives/cloud-native-applications-the-why-the-what-the-how-9b2d31897496

Micro-services to Business Services

HCL took a slightly different approach to microservices by bundling them together based on a clear business function they supported – a Business Service. This was done to reduce the maintenance burden while still enabling the independence of those key applications. By logically group applications into 4 distinct business services, each residing in a container – storefront, search, customizations and transaction – we made it simple for organizations to change, add, or update the business service without affecting any of the others business services.

Containers

With the introduction of version 9, HCL Commerce simplified platform management, introducing Docker containers. Docker makes it easier to create, deploy, and run applications, by allowing eCommerce professionals to package an application with all of the parts it needs, from the OS up to the application its libraries and other dependencies, and ship it all out as one package.   The benefits of Docker are well understood and well documented.

The following have been taken from 'Understanding the Business Value of Docker', Docker Whitepaper, June 2017.

- "70 - 90x Decrease in Application Maintenance & Support"
- "65% Reduced Developer Onboarding Time"
- "25%+ Reduced Compute Resources" by containerizing' apps and consolidating Virtual Machines (VMs)
- "30-35% Reduced Storage Footprint"
- "5-10% Reduced Memory Requirements"
- "13x More Application Releases"
- "10x Increase in Scalability"

Kubernetes

Kubernetes is a production-ready, open-source platform designed with Google's accumulated experience in container orchestration including automating deployment, scaling, and management of containerized applications, combined with best-of-breed ideas from the community.

 With modern web services, users expect applications to be available 24/7, and developers expect to deploy new versions of those applications several times a day. Containerization helps package software to serve these goals, enabling applications to be released and updated in an easy and fast way without downtime. Kubernetes helps you make sure those containerized applications run where and when you want and helps them find the resources and tools they need to work.

Headless

HCL Commerce has been an API first platform since 2014, developing extensive APIs and webhooks to ensure our customers have the flexibility they need to succeed.

By exposing all Commerce functions as REST-APIs, combined with the capabilities of both Containers and business services, B2C and B2B users can more quickly and easily adapt to market changes, incorporating new marketing and selling channels as they arise. APIs also make it easy to integrate new innovations from your partners so you can deliver better customer experiences - for example by allowing any content experience using any content management system.

Further, by combining a strong API strategy with webhooks you can help fill the gaps in an API-first approach so you can be sure you're capturing all the relevant data when you need it so you can make better faster decisions. Some of the benefits of webhooks include:

- A more efficient exchange of data, keyed off of events, so you don't waste API calls;
- The ability to support inconsistently changing data;
- Provision of near) real-time information.

There are, of course, situations where having a reliable and trusted storefront that is built on industry best practices so you can quickly and easily spin up a new site, whether that be for a new campaign, a new brand or a new geography. The React reference storefront provides the speed, reliability and security you need to be able to provide a great customer experience fast.

Key Capabilities

- **SPA and PWA Starter Stores** for B2B and B2C built on React mean brands can reduce the time and cost of implementation with stores built on modern technology leveraging industry best practices and years of customer input.

- **API-first approach** so brands can create and deploy any customer experience strategy. All commerce functions are exposed as Level 3 REST APIs so they can build customer focused experiences. Embedded Content Management System (CMS) and Digital Asset Management (DAM) with rich functionality, included without charge enables business users to make changes to your store.

- **Precision Marketing** gives brands complete control to deliver timely and relevant promotions and offers. This is critical to maintain an on-going dialog with customers and build stronger relationships.
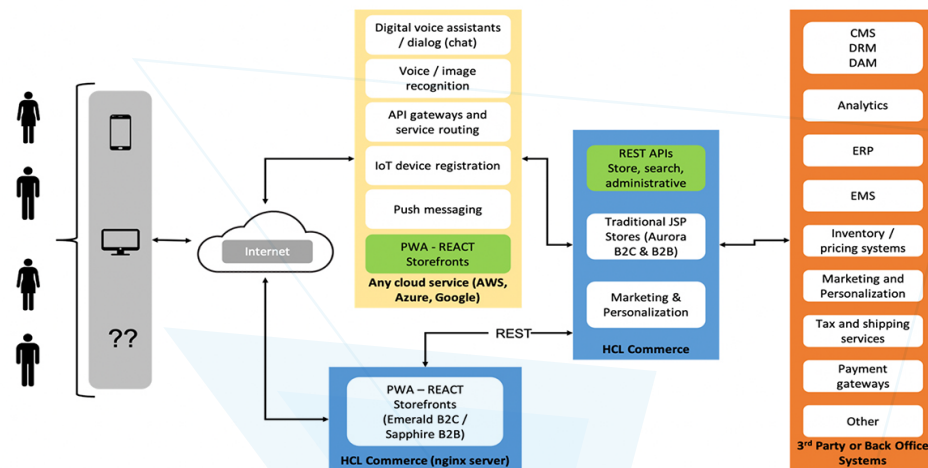
- **Promotions** to incent purchase behavior and drive sales. More than 150 promotions delivered out of the box that can be configured to target specific customers, segments, online behavior, purchase history and more. You can even create hierarchies to prioritize, stack and define how promotions are redeemed.

- **Advanced site search and navigation** that make it easy for customers to find what they're looking for quickly and easily. By giving business users the ability to control the customer experience with personalized content and site discovery, the customer comes away satisfied with their experience and more likely to return.

- **Global multi-site capabilities** that enable brands to easily build and manage multiple storefronts on a single platform. Strike the perfect balance between local control of catalog and merchandising and centralized management.

- **Deep business user tooling** so all the key stakeholders can get the most out of the platform, whether they're creating new website, promotions, search parameters, personalization and more.

- **Built-in customer service functionality** to enable customer service reps (CSR) to support online customers. Call center capabilities are embedded in the platform and the CSRs can deliver a better experience as they see what the customer sees through a simple web interface, for both B2B and B2C.

- **Merchandising** that works intuitively, allowing merchandisers to quickly make changes and automate tasks to help them focus more on product strategy. They can even create rules at the SKU level, giving them incredible flexibility to promote and sell while achieving high margins.

- **Personalization** that can be adjusted in real-time based on customer behavior and history. Product recommendations, promotions, offers and more can be built for a specific customer at a specific time.

- **Catalog management** that is easy to use helps business users manage catalogs, categories, catalog entries, merchandising associations, product attributes, and attachments in the store through a robust inheritance model.

- **Product information management (PIM)** to help centralize data and provide consistently accurate and rich product information on any channel it is needed - web sites, print catalogs, ERP systems and electronic date feeds among others. It also helps organizations across multiple verticals (for e.g Retail, Distribution, Manufacturing, Financial etc) speed up the time to market and accelerates marketing efficiency.

- 16 languages and 30+ currencies supported out of the box so brands can easily expand their **international reach**

- **Embedded CMS and DAM** to streamline the creation, management and distribution of your content to ensure your customers have a consistently great experience in any channel on any device.

- Solution Factory (SoFy) integration to **automate deployment** of complementary technologies like Google Cloud Platform

- Integration with Google Analytics for a more complete picture of your customers and their activity

- HCL Commerce now certified on **Google Cloud Platform**

Key Considerations and Planning

Before jumping into an implementation of HCL Commerce V9.X there are some basic requirements you should plan on in order to get the most out of your deployment as quickly as possible. Architecturally, the below simplified graphic will give you a sense of what your set-up should look like to optimize your cloud-native strategy. Every case is different so you should engage with our Advisory services team and your preferred partner to learn more and build a go-to-market strategy leveraging both pools of experience in moving to cloud native.

In Summary

HCL Commerce is the one transaction platform that helps enterprise companies sell more. Leveraging a modern, cloud-ready, extensible architecture our clients can deliver more innovation in less time to unlock growth, achieve higher ROI, accelerate innovation and reduce their business risk. HCL combines the trusted scale, security and performance you expect, with the speed and flexibility of a modern cloud-ready, extensible commerce architecture – all built on 20 years of unmatched, omni-channel innovation that's been co-created with our customers and partners. Start delivering world-class experiences that are easy to customize on a platform that enables non-stop innovation. Visit the website to learn more.

Resources

HCL Commerce Tech Talk Series: https://bit.ly/HCLCommerceYouTube

Knowledge Center: https://help.hcltechsw.com/commerce/index.html

Docker: https://youtu.be/6gJs0F8V3tM

Kubernetes: https://kubernetes.io/docs/tutorials/kubernetes-basics/

Apache Kafka: https://kafka.apache.org/documentation/

Apache ZooKeeper: https://zookeeper.apache.org/

Redhat OpenShift: https://youtu.be/5dwMrFxq8sU

Prometheus: https://prometheus.io/docs/introduction/overview/

Grafana: https://grafana.com/docs/grafana/latest/

Elasticsearch: https://grafana.com/docs/grafana/latest/

Jenkins: https://jenkins.io/doc/

Redis: https://redis.io/documentation

Gluster: https://youtu.be/ml6xRrkum2M

NGINX: https://youtu.be/UExhlDjJ2_M

Vault: https://youtu.be/VYfl-DpZ5wM