

# Building Your Ecommerce Strategy

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# 1. Introduction

Ecommerce refers to the sum of all interactions a customer has with your business across website, mobile, and other digital experiences. The more a customer shops on your website, the more likely they are to refer their friends and family. The brand experience you create online is integral to bringing shoppers back and spreading your reputation by word-of-mouth to attract new customers.

Starting with a basic ecommerce strategy helps you identify and plan for gaps, account for compliance, and support customer satisfaction by considering all of the moving parts of your store. Without a strategy, you could face:

- Confusing layouts that result in increased bounce rates
- Security issues causing lost trust and bad press
- Lack of compliance, resulting in big fines or an inability to take payments
- Bad resource planning which might lead to outages that disable sales

The desired customer outcome should drive the business focus, the technologies used, and the security measures implemented to build trust, loyalty, repeat business, and referrals.

## ELEMENTS OF ECOMMERCE STRATEGY

The path a merchant takes to build their ideal customer experience is unique to their industry, brand vision, and goals, but should include these elements:

- User-based strategy for aesthetics and purchase paths
- Platform selection, including a plan for re-platforming, where applicable
- Market-appropriate mobile functionality unique from your desktop site
- Security and compliance measures as dictated by your industry
- Peak traffic preparedness including load testing and performance benchmarking

In this paper, we'll cover the basics of each element as a starting point to building and executing your optimal customer experience.

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*1-second delay in response can lead to 7% drop in conversions.<sup>1</sup>*

## 2. User-based Focus

Think like a customer. This begins with considering the look, feel, and flow of your online presence, and extends through your social media efforts and other online activities. Your home page should say “hello” like a sales clerk would in a physical store, and lead the user through your site with relevant prompts, information placement, image sizes, design consistency, logical navigation, and a safe atmosphere.

Use dynamic pages to serve custom content based on the user profile. For example, a sporting goods retailer could display a home page that highlights camping gear. A previous user who had browsed for tents may see this homepage, while a user that had browsed jet skis might be served up entirely different content. Enhanced search capabilities give users a quick way to find exactly what they’re looking for when they don’t want to browse the site. Adding content that supports the buying process like reviews, multiple product views, and live chat helps foster experiences that turn site browsers into loyal customers.

To determine which features are right for your product and customers, use analytics and customer surveys. That will help you to find out what’s working or missing now. Executing the most advanced features may mean more than just changing text and images. Instead, you may need to rethink or revamp existing database schemas and ways to scale systems to account for the collection, storage, and manipulation of new types of data.

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See [The Ecommerce Customer Experience Guide](#) for help building out your customer experience strategy

### 3. Choosing Your Ecommerce Store Platform

Your ecommerce platform consists of the software, such as [Magento](#), [Oracle Commerce](#), [Adobe](#), or others, along with the infrastructure selected to run that software.

The software decision should be based on your customer-experience goals. If your site needs the option to configure individual products but your ecommerce software doesn't support it, you can't offer the experience you've planned. Similarly, running a resource-heavy ecommerce platform on underperforming hardware yields a losing proposition as customers bounce due to slow page loads. Your options for ecommerce infrastructure include:

- **Cloud:** Takes advantage of massively scalable infrastructure and pre-configured or highly customizable environments to reduce hardware and management burdens. Choose a [public cloud](#) for low cost or [private cloud](#) for workloads subject to stringent security or compliance mandates.
- **On-premises:** Puts the burden of hardware, security, performance, and scale on your IT team and your budget. This gives you ultimate control with all the headaches that accompany being responsible for the entire ecommerce infrastructure.
- **Hybrid Cloud:** Combines on-premises or [dedicated hardware](#) with cloud resources to achieve cloud efficiencies while meeting certain security or compliance needs. In a hybrid environment, a retailer can opt to move certain workloads, like [email](#) or [content delivery](#), to the cloud while maintaining control over other critical systems best run on dedicated or on-premises gear.

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Read [Ecommerce Replatforming Basics](#) for more guidance on planning and executing a replatforming project.

## 4. Mobile Functionality

The mobile experience leverages mobile-specific functionality, like click-to-call, GPS integration for maps or geo-targeting, gesture recognition, and others. Imagine trying to geo-target customers in a downtown area with slow servers that don't deliver the notification until hours later.

Mobile also comes with a whole new set of usability rules. The depth of content on your website has to shrink for smaller screens while elements like buttons and images need more screen space to accommodate mobile tapping. Placement of social plug-ins and shopping cart operation also need to be simplified to enhance—not clutter—the purchase path.

Over the years, businesses have approached their mobile and desktop platforms with separate strategies. This often resulted in a mobile-optimized version of a site and/or an accompanying native mobile app. However, maintaining a desktop and mobile app in isolation often leads to disconnected experiences and user dissatisfaction when the newer mobile app doesn't flow or operate in the same way as the traditional desktop site. Responsive design enables ecommerce operators to design a single site that displays differently on different devices, an approach that saves resources by reusing images, and content. This allows for a consistent visual and content experience across desktop, mobile and tablet devices.

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*Mobile commerce (Mcommerce) accounts for 1 in 10 e-commerce dollars and is set to grow to \$86 billion by 2016.<sup>2</sup>*

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*Learn more about [using pre-configured mobile stacks](#) to support your mobile experience.*

## 5. Peak Traffic Preparedness

Nearly half of companies (48%) report that downtime negatively impacts their brand and reputation.<sup>3</sup> The inability to maintain operations during a fault or a spike is an enormous risk to an ecommerce site. If your environment encounters an issue with a patch, an update to code, a service or hardware component failure, or a natural disaster, what happens to your site? Do you have a contingency plan for expected and unexpected downtime issues? Documenting your ecommerce strategy lets you identify and address infrastructure needs that might negatively impact performance.

Stress testing, the equivalent of running a “fire drill” on your site, is integral to understanding site operations and where optimizations are needed. Every system has physical limits and most ecommerce environments are unique. Under stress, a site may reveal a weakness or a break in operation, letting you tune your site to mitigate the risk before angry customer feedback or social media backlash.

Build in yearly or quarterly performance testing, ideally during slow periods so that primary systems aren't impacted. Testing should evaluate performance throughout the entire ecommerce environment—from network throughput to disk I/O, the speed of failover, and even memory or CPU utilization—as one weak link can break the entire environment.

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*Not sure how much downtime costs you? Watch the [Be Resilient and Ready](#) video for guidance on calculating downtime costs and planning disaster recovery*

## 6. Compliance & Security Measures

Ecommerce transactions build consumer trust by limiting the risk of fraudulent activities while ensuring the privacy of consumer information. However, in nine years, the Verizon Data Breach Investigations Report has recorded over 1.2 billion breached records with 24% of breaches attributed to retail transactions<sup>4</sup>. These records include credit card numbers, personally identifiable information, or cardholder data that was lost, stolen, or accessed without authorization.

To minimize this risk, the Payment Card Industry (PCI) created a commission, the [Payment Card Industry Security Standards Council \(PCI SSC\)](#), charged with setting and maintaining the Payment Card Industry Data Security Standards (PCI DSS). PCI DSS helps alleviate the vulnerabilities associated with the transmission, storage, and/or processing of cardholder data, specifically the Primary Account Number.

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*Only 11% of business achieved compliance with all 12 PCI DSS requirements in 2013.<sup>5</sup>*

Achieving compliance with PCI DSS is a continuous process of performing assessments, remediation efforts, and reporting the results. The Council maintains a [library of documentation](#) to help merchants and service providers mitigate risk and maintain secure online transactions.

Businesses that utilize online transactions must first identify potential risks both to the consumer and to the business itself. If the existing resources cannot sufficiently and reliably perform those functions, consider a solution that best fits your business model and protects all parties involved according to PCI DSS. Ecommerce sites have three ways to meet the PCI DSS requirements:

- Use a payment gateway which involves integration with an Application Program Interface (API) to facilitate the transmission of the Primary Account Number with or without the storage of this information
- Transmit and store the Primary Account Number internally
- Choose to outsource the transmission, storage and/or processing of payment data

Ultimately, the route an organization takes to meet the requirements of PCI DSS is a business decision and should be evaluated carefully.

### OVERALL SITE SECURITY

PCI DSS covers best practices for the protection of sensitive cardholder information. There is little guidance on how to secure ecommerce elements outside of PCI compliance. DDoS attacks and email-borne viruses can still grind the operations of a compliant site to a halt.

The systems (server, storage, software, etc.) that support ecommerce transactions can be costly to secure and manage. These types of workloads are where [hybrid cloud solutions](#) are gaining adoption. With a hybrid cloud approach, merchants can take advantage of cloud efficiencies while maintaining compliant systems to actually transmit, process, and/or store cardholder information on dedicated or on-premises gear.

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*Find out how to integrate cloud into your PCI compliance efforts in [PCI Compliance in the Hybrid Cloud](#)*



## 7. Getting Started

### MAPPING SITE FLOW AND PROCESSES

Site flow is usually mapped using flowcharts or software that lets you visually layout purchase paths. The following list represents basic elements of site flow categorized into business, technical, and customer-facing activities. Your site may have more or less elements based on your experience goals:

#### Business:

- Marketing campaign, sales promotion, or media mention drives customers to website
- Social media activity stimulates traffic
- Internal/employees access site for reference

#### Customer:

- Users access site using an internet browser and their desktop, mobile, or tablet device
- Request travels over the Internet (caching name servers/root name servers)

#### Technical:

- Registered URL configured to resolve to a Public IP Address through DNS then IP resolved to an Internet Service Provider (ISP)
- IP Address request sent through a series of routers to your data center
- IP Address and port number (80-http/443-https) travel through a series of switches
- Web service server accepts the request and responds with content or sends a request to a database server
- Information travels back to the customer for each request

#### Customer:

- Views the requested data
- Makes a decision to continue browsing the site
- Adds an item to the web application/shopping cart
- Continues through the check-out process

#### Technical:

- Checkout and/or site registration process must adhere to privacy regulations
- Payment gateways must meet compliance guidelines
- Confirm payment method used

#### Business:

- Generate purchase confirmation
- Transactional and order follow-up communication
- Inventory and fulfillment coordination

## 8. The Inventory

Once you've mapped the site flow, creating the inventory helps you define the individual components you already have, or that you need to have, in order to execute site flow and processes as planned. A well-developed inventory guides the strategy that delivers a superior user experience. It can also uncover areas for improvement and those areas no one thinks about until something goes wrong, like security or shopping cart functionality. An e-commerce site's inventory may include:

Visual Content  
Payment Gateway  
Web Applications  
Domain Names  
Database Services  
Internet connection  
**Target market**  
Acquiring Bank  
Shopping Cart  
Product line  
Web Services  
Payment Processor

These items span across departments. All stakeholders should point out aspects of their particular focus that are not represented. For example, examining the inventory from a business perspective may point out that marketing isn't listed, and without marketing there wouldn't be any customers visiting the site. The technical perspective will uncover hardware or data center deficiencies. The security perspective can evaluate firewalls, SSL certificates, or the 200+ other requirements that should be considered for an ecommerce site.

Creating a vetted inventory is exhausting, however it's an important first step to understanding how all of your site's pieces work together. Once you've completed this inventory, you'll have a better understanding of what you need to do to implement the technologies and processes needed to support your site.

## 10. Summary

According to the 2014 Forrester and Shop.org study, “The State of Retailing Online,” repeat customers accounted for 51% of website revenues. That four in ten of your competitors are planning a site overhaul this year<sup>6</sup> means it might be time for you to take a look at or update your ecommerce strategy so you don’t get left behind.

### NEED HELP?

With deep experience and expertise in leading digital platforms, **Rackspace Digital** is able to provide guidance on best practices, architecture, as well as proactive support in the following competencies:

- **Content** – Provides application and infrastructure hosting expertise for leading WCMS platforms empowering users to deliver consistent, responsive, and reliable online experiences to customers. This includes WordPress, Drupal, Sitecore, Adobe and Ektron.
- **Commerce** – Using open, hybrid infrastructure, and services for building secure, scalable, and highly available online stores for extending, expanding and enhancing online revenue via Magento, Oracle Commerce, hybris, and Intershop.
- **Mobile** – Provides flexible, mobile infrastructure and application platform hosting expertise in Node.js, FeedHenry and MutualMobile to empower users to develop highly scalable, reliable mobile services to customers.

## 11. Real Customers Talk About Real Strategic Benefits of Rackspace Digital:

### COMPLIANCE:



“It is probably true to say that without the considerable amount of help from Rackspace, we could not have passed the exceptionally stringent PCI audit. Rackspace certainly went above and beyond their remit to ensure that everything was perfect for us.”

**Aingaran Somaskandarajah**

*Technical Lead, Oyster Card*

### AVAILABILITY



“Our traffic and business can increase 100 times to 1,000 times what they were in the off-season. We have to scale on and off, but we also have to try to not carry too much infrastructure in the off-season. That’s why we went with the Rackspace Hybrid Cloud based on RackConnect® – we split our application between a dedicated private infrastructure for our checkout process; and we use the public cloud for product descriptions, prices and other information.”

**Steve Vitale**

*Director of Ecommerce, Spencer Gifts*

### PERFORMANCE



“With Rackspace, Karmaloop can deploy a variety of state of the art servers whenever necessary, bring those servers to scale quickly, which fundamentally allows the company to keep the user performance great, page load time very fast, and provide Karmaloop customers with an uptime of 100%.”

**Gary Rush**

*CTO, Karmaloop*

## MOBILE



**ACQUITY GROUP**

“Rackspace’s reliability gives Acquity Group the freedom to focus on creating great apps and onboarding customers without worrying about infrastructure.”

**Kevin Ellenwood**

*Vice President of Shared Services, Acquity Group,  
Part of Accenture Interactive*

## COST EFFECTIVENESS



**Domino's**

“Cloud gives us flexibility and cost savings and I can’t see why we cannot move as much as 80% of our total workloads to the cloud, including business-critical apps and mobile workloads.”

**Colin Rees**

*IT Director, Domino's Pizza*

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# About Rackspace

Rackspace® (NYSE: RAX) is the #1 managed cloud company. Its technical expertise and Fanatical Support® allow companies to tap the power of the cloud without the pain of hiring experts in dozens of complex technologies. Rackspace is also the leader in hybrid cloud, giving each customer the best fit for its unique needs — whether on single- or multi-tenant servers, or a combination of those platforms. Rackspace is the founder of OpenStack®, the open-source operating system for the cloud. Based in San Antonio, Rackspace serves more than 200,000 business customers from data centers on four continents.

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