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How to modernize your eCommerce analytics and improve customer experience

6 best practices of digital performance masters

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Executive Summary

Today's hyper-connected digital consumers are multi-device, empowered, and they demand convenience.

They have high expectations for their online interaction with your brand, and have zero patience for a slow online experience or worse — a crashing mobile app. Their options are many, and your competition is just a tap away.

At the same time, you are challenged to deliver seamless online experiences — across a vast sea of IT complexity — to these demanding customers. Each moment and touch point in the digital application delivery chain presents a potential risk or failure — or opportunity to delight customers. The quality of your customer experience directly influences your revenue, reputation, loyalty, and market share.

Your path to digital performance mastery requires a joint effort from IT and the line of business. It means measuring and managing the end-to-end application delivery and translating it into actionable information for each stakeholder.

This eBook is a guide for all of you that are responsible for digital performance. It will help you maximize revenue and brand loyalty, launch new initiatives with confidence, and build engaging digital experiences faster.

Chapter 1

Today's hyper-connected digital consumers

They are multi-device, demanding, and empowered

Digital consumers are driving a major transformation across all industry sectors, none more rapidly, than eCommerce.

They eat, sleep, and breathe with their mobile device and expect the same high quality experience whether they are online, in store, or mobile. Almost 80% of them check their smartphone within 15 minutes of waking.[1]

ALWAYS CONNECTED

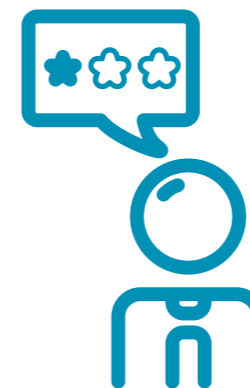**80%** of them check their smartphone within 15 minutes of waking.

DEMANDING

60% rate performance / response time as the #1 mobile app expectation — ahead of features and functionality.[3]

MULTI-DEVICE

95% of digital shoppers who started on a smartphone continued on a PC.[2]

EMPOWERED

2+ BILLION people have some form of social media account; **44%** will air their frustration on social media when they have a poor online experience.[4]

They demand convenience

Digital consumers expect convenience at every stage of the buying process.[5]

They want retailers to provide:

> **Immediacy,** responding in milliseconds

> **Simplicity,** anticipating their needs and providing preemptive service

> **Context,** providing products and services in context to their location, timing, and stage in the process.

The digital experience you provide is imperative not just for online sales growth, but for your brand's ultimate survival. If you don't meet consumer expectations for convenience and speed you will lose their attention — and their business.

Consumer expectations have changed

Immediacy   Simplicity   Context

= Convenience
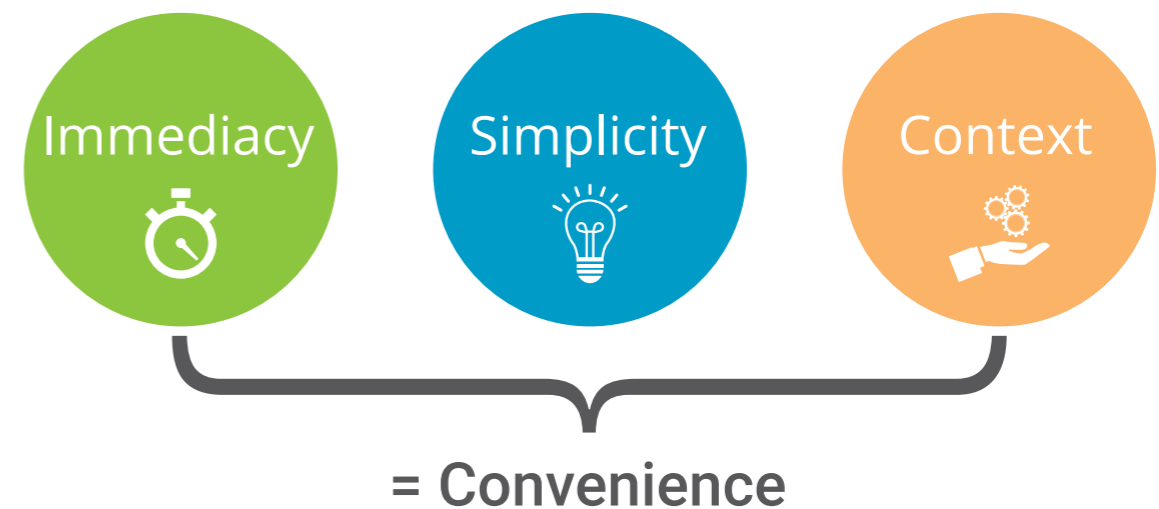
"There's never been a time when consumers have had so much power, or when the decision to switch brands was so low-cost and easy for them. If anyone has a poor experience with a website or an app, they can go elsewhere with just a click."

– Forrester Research

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Chapter 2

Complexity is the new black

Complexity is the new black

While product assortment and customer service are certainly critical, the biggest customer experience challenge you face today is mastering the complexity of the digital application delivery chain.

Today's digital applications execute on the edge of the Internet, across an array of devices, service provider backbones, content delivery networks, 3rd parties, and more.

There are a great many points of potential failure between your end-user, their multiple devices, and your company. Any and all of these areas can experience problems and take your customer from a good experience to complete frustration — impacting sales, loyalty, and your brand.

How much volume? How much complexity?

> Consumers use an average of 2.6 devices across 1.5 channels on their journey to purchase.[6]

> 80% of mobile users' purchasing decisions are influenced by mobile.[7]

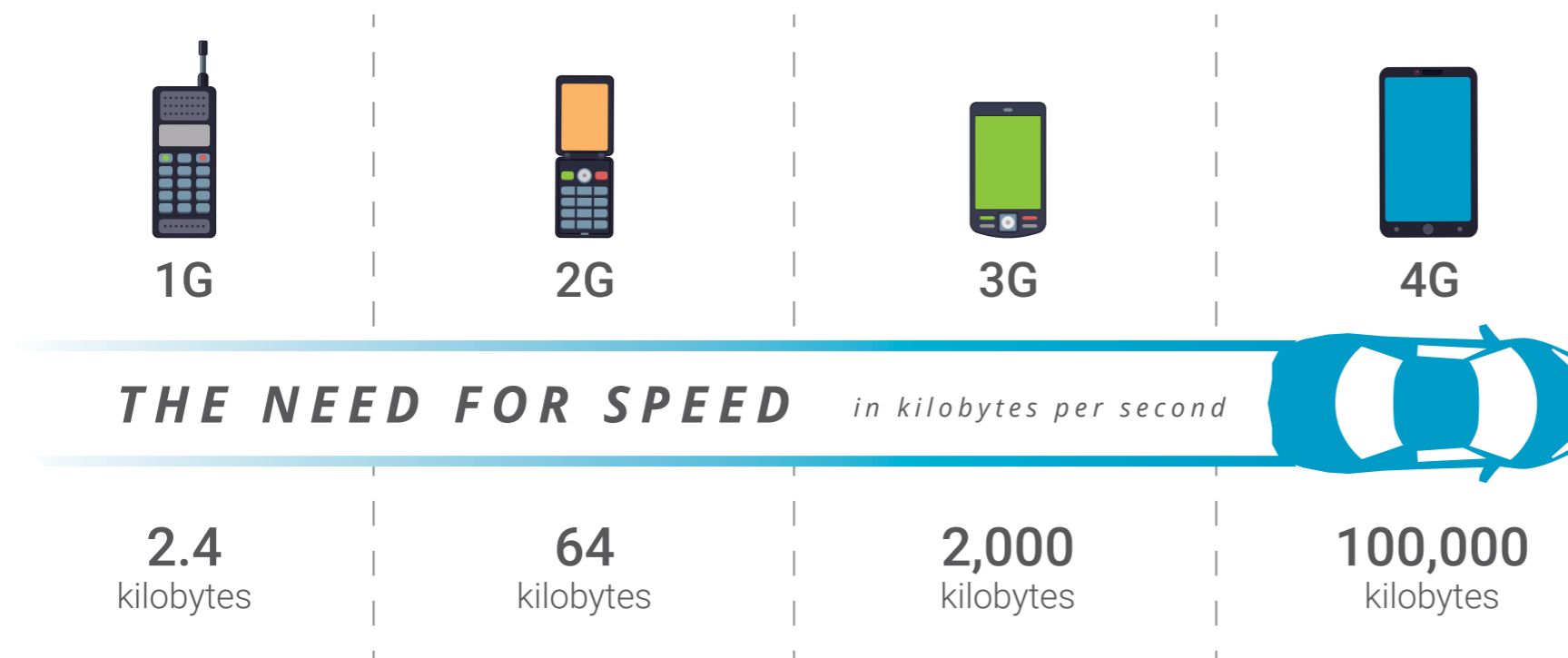> In 2014, shopping apps sessions (iOS and Android) grew 174% YOY.[8]

Massive complexity in the application delivery chain

How complexity impacts your customer and your bottom line

What is the impact of not meeting end-user expectations?

A 7-second response time may have been acceptable to an iPhone 3 user on 2G, but it is way too slow for an iPhone 6 user on 4G/LTE. That user even thinks a 3-second response time is too slow!

1G	2G	3G	4G

THE NEED FOR SPEED *in kilobytes per second*

2.4	64	2,000	100,000
kilobytes	kilobytes	kilobytes	kilobytes

"Today's digital applications have exponentially more end-user volume; increased 3rd party dependence; and more browsers, devices, and versions to accommodate than anyone can count. A problem anywhere along this delivery chain, at any point — whether it is in your data center, with a 3rd party service, or a browser problem — can impact your customers' experience, your revenue, and your brand."

– David Jones, Field Technical Evangelist Director, Dynatrace

Performance matters

When websites slow even a little, conversion rates decline — even if you have a killer promotion and everything else is done right.

Walmart's recent study found that when page load times increased from 1 to 4 seconds, their conversion rates declined sharply. And on the flip side, for every 1-second of improvement, they experienced a 2% conversion increase. *On eCommerce revenue of $9 billon, that's $180 million.*

When load times jump from 1 second to 4 seconds, conversions declined sharply

And for every 1 second of improvement, conversion increased 2%

2014 ecommerce revenue for Walmart: $9 Billion

Data source: Walmart Labs

Conversion rate %

Load time in seconds

1-2   3-4   5-6   7-8   9-10   11-12   13-14   <15
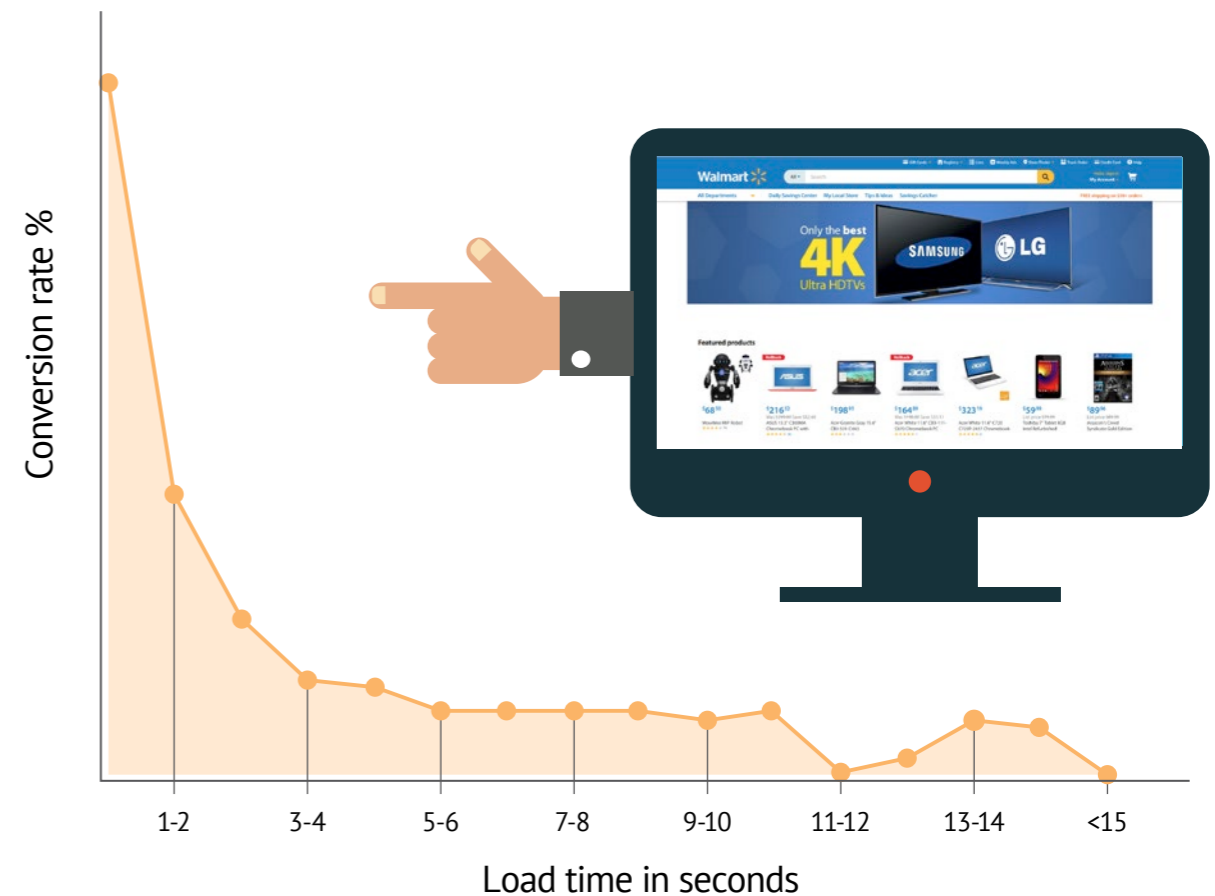
Monitoring customer experience across the complexity

Many companies are just starting to develop a strategy to monitor customer experience. Traditional tools have primarily tracked on-site behavior, telling you only what happened but not why.

Today, understanding your customers' experience requires modern application management tools. These tools provide a comprehensive view of customer experience across every digital interaction, with deep insight into the application delivery chain, and focus on
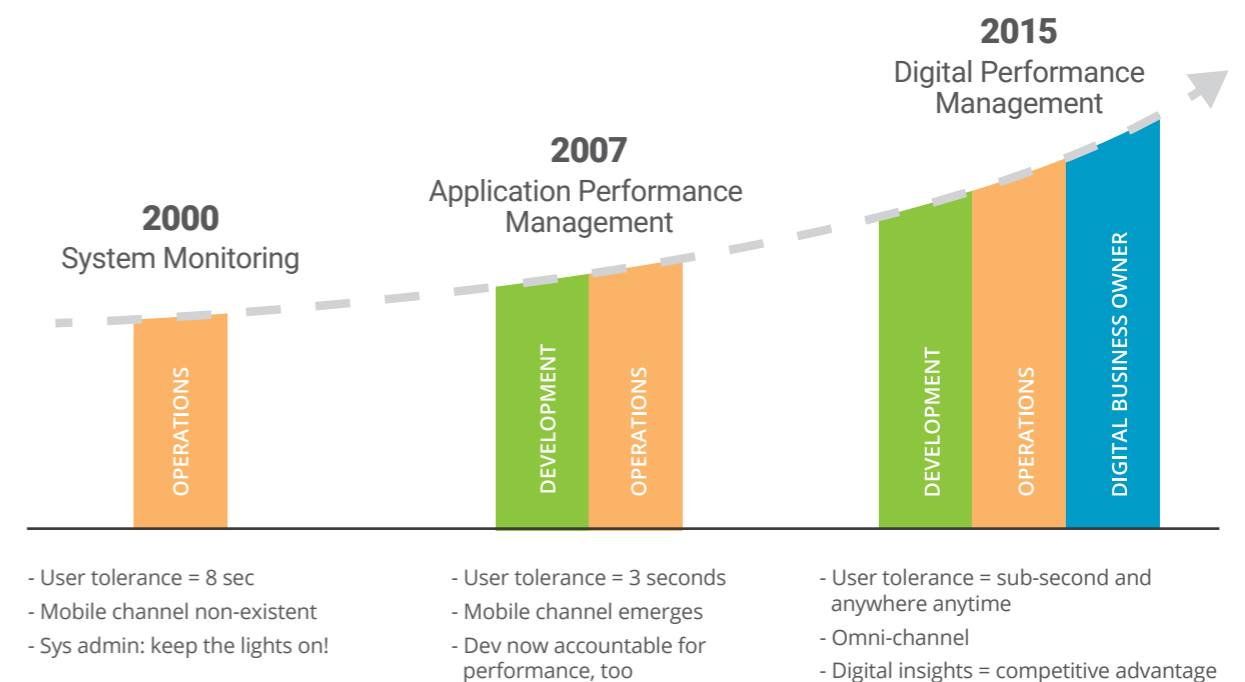
your users' journey as a whole — not just the bits and pieces.

In the next chapter, we'll look at six best practices to help you move beyond a traditional monitoring approach to master digital performance by gaining deep visibility customer experience.

"If professionals don't update their approaches to digital analytics, they will continue to be plagued by poor customer experiences; irrelevant business reporting; and silo'ed customer insights.[9]"

— Forrester Research

Evolution of APM to digital performance management

2000
System Monitoring

OPERATIONS

2007
Application Performance Management

DEVELOPMENT

OPERATIONS

2015
Digital Performance Management

DEVELOPMENT

OPERATIONS

DIGITAL BUSINESS OWNER

- User tolerance = 8 sec
- Mobile channel non-existent
- Sys admin: keep the lights on!

- User tolerance = 3 seconds
- Mobile channel emerges
- Dev now accountable for performance, too

- User tolerance = sub-second and anywhere anytime
- Omni-channel
- Digital insights = competitive advantage

Chapter 3

Best practices of digital performance masters

Six best practices to learn from

Market leaders offer a responsive digital experience that embraces the ever-increasing expectations of today's digital consumers across the complexity of the digital delivery chain.

Behind the scenes, they follow best practices for application management with modern tools that provide them with deep and actionable insight into customer experience across all digital channels, in real-time. Here are the six best practices that will help you on your path to becoming a digital performance master:

1. Gain visibility to complete individual customer interactions.

Your customers' experiences across all their interactions with you are what determine whether they are satisfied or frustrated. Look at customer visits as a collection of all actions, across channels, and in the order executed. At a minimum, measure the first and last action and when the visitor abandoned the site or converted.

2. Gather real time, contextual performance analytics for every visit.

With real time data across all customer channels, you can resolve customer complaints, conversion, and bounce rate issues quickly. This great contextual data can also help you predict problems, quantify issues, and make informed decisions about where to prioritize and focus.

Six best practices to learn from (cont.)

3. Understand application performance across Web, mobile Web, and mobile apps.

Enable your business teams to understand and compare the experience delivered to every customer across channels. Evaluate customer experience across online channels — by geography, device, browser, and connection type — and provide visibility to business teams.

4. Gain real-time visibility into 3rd party contribution to customer experience across channels and geographies.

You rely on 3rd parties to deliver critical services and content that makes up your overall customer experience. You need to pinpoint 3rd party issues and resolve them quickly.

5. Use benchmarks for industry-based, comparative performance measurements.

Benchmarking provides intelligence on how to improve your customer experience. Check where your website and mobile site performance stands against your competitors' to find out where you need to improve. Establish performance baselines to evaluate the impact of optimization initiatives on an on-going basis.

6. Practice application performance management throughout your development lifecycle.

Shift-left quality by adding performance management capabilities to the start of the application development lifecycle and eliminate common problem patterns earlier. Enable engineering to define their metrics and track them all the way into production to get real-time feedback from real users back to engineering. Integrate automatic metric collection into your existing toolset for your delivery pipeline.

Chapter 4

Assessment: What does it take to be a master?

Performance assessment: Are you a master?

You can advance your performance management strategy for your eCommerce business now. Take an honest look at how you currently understand and optimize your customer journey. Give your organization one point for each area where you have full coverage. By rating your abilities in each of these key areas, you can determine the steps you need to become a digital performance master.

Real time, contextual performance analytics for every visit	score
We get fact-based insights from individual user-interactions and our 3rd party services in real-time.	
We get fact-based insights from individual user-interactions and our 3rd party services in real-time across all channels (smart phone, tablet, desktop).	
We can identify patterns and predict problems to make adjustments proactively.	
We can pinpoint problems and quantify issues to help us prioritize what to fix first.	
We have real-time information that helps us speed complaint resolution.	
We have real-time information that helps us understand conversion roadblocks.	
We have real-time information to help us address bounce rate issues.	
We use transaction mapping, views of real-time revenue and conversion rates, trending, and other KPI reporting.	

Business impact and opportunities with an omni-channel view	
Our business teams have visibility and can understand the end-user experience being delivered across our omni-channel landscape (e.g. phone, tablet, laptop).	
We have the ability to examine all application types (native, hybrid, web) by geography, device, browser, and connection type.	
We use the details of our collective omni-channel insight to increase customer satisfaction, loyalty, and brand engagement.	

Real-time visibility into 3rd party providers	
We are able to see that our payment provider is struggling to hold the defined SLA and have a fallback plan.	
We are able to see that our ad provider is too slow and can turn ads off or move to a different provider.	
We are leveraging social media single sign-on, have visibility into failures, and are providing our customers with a back-up.	
We know when our service providers break due to too much traffic on our own systems.	

Visibility to whole user visits and individual customer interactions	
We can quickly identify roadblocks to conversions regardless of the digital channel (smart phone, tablet, desktop).	
We can measure the quality of our online traffic and reduce our bounce-rate.	
We have ready customer experience data and have built technical metrics to observe each user journey.	
We can evaluate our user journey and know where and how to fine tune our user experience (e.g. 3rd party services) to increase our conversion rate.	
When we have customer complaints, we can pinpoint where the issue or problem is occurring and expedite for complete resolution.	

Performance assessment:
Are you a master? (cont.)

Competitive benchmarks as a source for industry-based, comparative mobile and website performance measurements	
We regularly benchmark our customer experience against our competitors to determine how we can make improvements.	
We have mobile and website performance baselines and continue to evaluate the impact of optimization initiatives on an on-going basis.	
Processes for sharing data (aggregate or per user / per interaction granularity) across teams in real-time	
We have unified our metrics and their context in meaningful ways to each stakeholder in our online delivery process (business and IT).	
All stakeholders have a clear understanding of goals.	
All stakeholders understand where improvements can be made.	
Problem resolution is fast because of connected sharing and visibility across teams.	
We fix applications, create new features, and build new digital applications faster than we did two years ago.	
We can see and jump on issues before they impact our end-users.	
TOTAL	

Score	Level	Description
1 to 9	Novice	You have a basic awareness of the end-user experience which accelerates your ability to identify problems that impact customers, employees, and partners. You may still be struggling at this stage to identify root causes and resolve problems quickly.
10 to 19	Apprentice	You have end-user experience visibility that extends all the way from the users, through the cloud, to the data center enabling performance for Web, non-Web, and mobile apps to be optimized across the entire application delivery chain.
20 to 28	Master	You have a proactive management of application performance that is accomplished using predictive analytics and collective intelligence in order to prevent problems and continuously optimize performance.
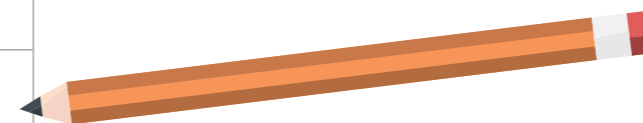
Your homework

Master the complexity and gain a competitive advantage in today's digital world. The more visibility you have into your customer's digital experience, the better you will be able to serve them in innovative ways, with exceptional experiences at their exact moment and need.

Here are some additional tools to help you on your path to digital performance master.

✂ **Practice makes perfect. Put the tips in this eBook into action.**

> Understand how your website is performing
  for mobile and web users
> Analyze the performance impact of your website design
> Know how your mobile and website speed compares
  to the best in your industry

Are you delivering exceptional user experiences?

Click here for your
FREE MOBILE & WEBSITE
PERFORMANCE TEST

▶ Webinar replays

> Attention Holiday Online Businesses: Avoid Cyber Monday's "Too Late" Tuesday

> Best of the Web Awards 2015

▦ The blogroll

> Creating Evolved Applications for Evolving Customer Experiences

> Comparing User Experiences: Web, App & Mobile

> Omni-Channel Monitoring in Real Life

> The Essential Omni-Channel User Experience Measurement Index

📚 Recommended reading

> 2014 Mobile Holiday Shopping Report

> Best of the Web 2015 Report

> Nordstrom: Creating a Singular Experience, Online and In-store

> *The Mobile Mind Shift* by Ted Schadler, Josh Bernoff and Julie Ask
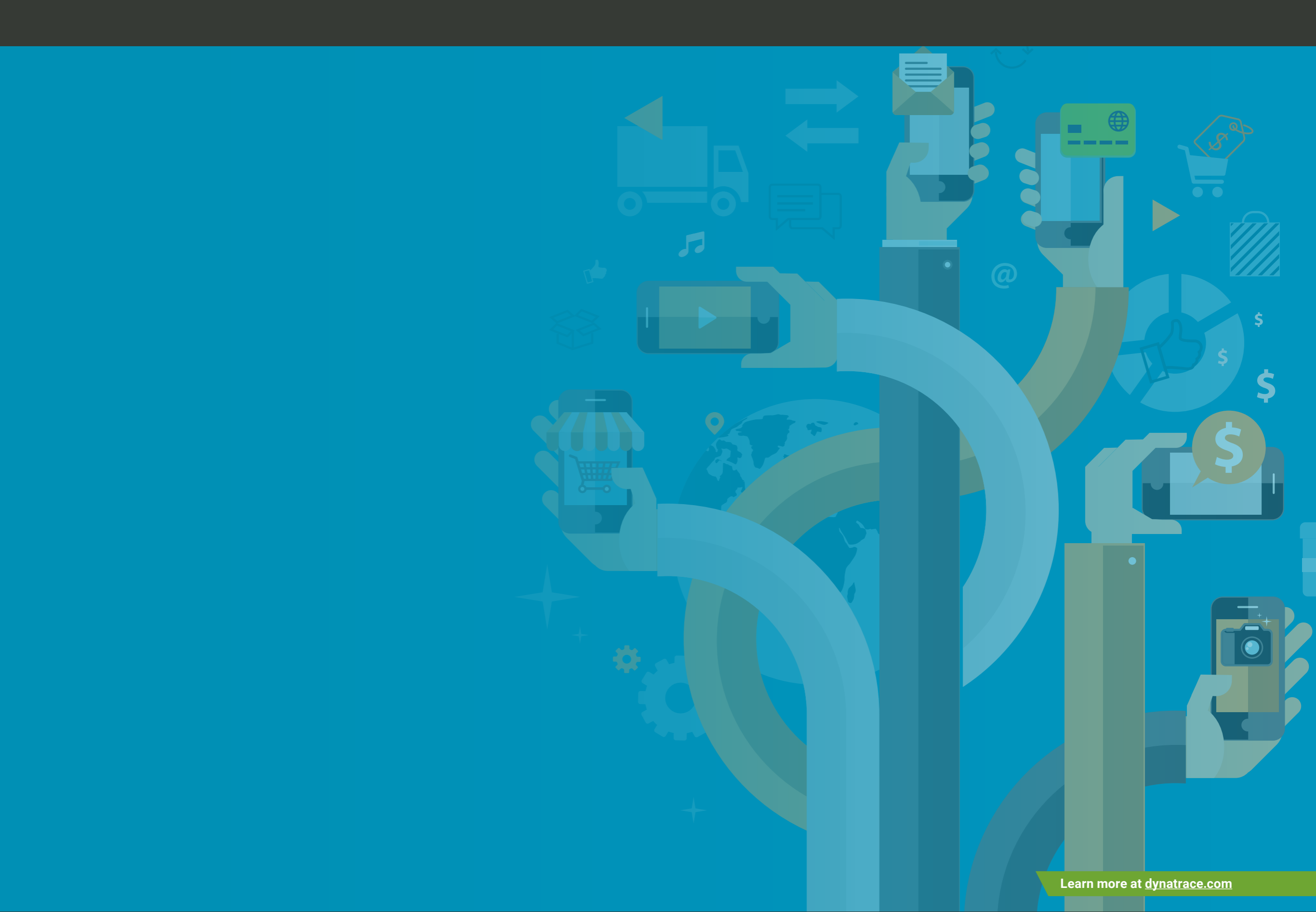
More from Dynatrace

⚒ A secret weapon: Dynatrace Omni-Channel Accelerator

The Dynatrace Omni-Channel Accelerator is a package designed to quickly optimize your digital customers' experiences. It helps you deliver high-quality customer experiences and drive maximum conversions. The service reduces requirements for production support and triage time and provides common views, tools, and focus for both digital business and operations stakeholders. It's a winner for all, giving everyone clear visibility to work toward the same goals. Contact your Dynatrace sales representative for more information.

Sources

1. IDC, *Always Connected*, March, 2013.

2. Forrester Research, Customer Experience in the Post PC Era, December, 2014.

3. Forrester Consulting, Good Apps, Bad Apps, December, 2014.

4. Dynatrace Survey, NORAM, December, 2014.

5. Julie Ask, Forrester Research webinar for Dynatrace, "5 Ways to Drive Conversions with Exceptional User Experience," March, 2015.

6. Nicholls, hybris presentation at Shop.Org Summit, "Conversion Techniques," 2014.

7. Abramovich, "15 Mind-Blowing Stats About Mobile Commerce," CMO.com, March, 2014.

8. Flurry Insights, *"Shopping, Productivity, and Messaging Give Mobile Another Stunning Growth Year,"* January, 2015.

9. Forrester Research, Supercharge Analytics with Digital Intelligence, September, 2014.

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