Web Optimization Takes a Team:

Better Collaboration across IT and Engineering
Helps Drive Better Digital Experiences

The most successful businesses build
cultures of web performance

splunk>

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Delivering Great Customer Experience Is a Critical Component of Business Success

The best online experiences are born from development teams that share a passion for constant optimization and the pursuit of ever-higher degrees of performance.

Challenge

Collaboration can be challenging between front-end and back-end development teams. Where front-end developers constantly manage user-facing improvements or feature enhancements, back-end teams may focus on server-side logic or availability. Often, customer experience can be deprioritized in favor of basic uptime or deployment frequency.

Solution

The solution is to create a culture of performance that puts customers first, fosters collaboration and allows development teams to consistently improve performance for better customer experiences.

Synthetic monitoring and **web optimization** are key ingredients to a culture of performance and collaboration as a competitive edge.

The Performance-Driven World of Digital Business

Today, every business is a digital business. And that means that delivering great digital experiences online has to be a top priority.

This puts particular importance on the web development, engineering and IT Ops teams responsible for building, maintaining and improving those customer experiences.

The relationship between web performance and revenue is clear. Deloitte recently looked at mobile site data from retail, travel, luxury and lead generation brands across Europe and the US. Based on a 0.1s natural mobile site speed improvement, Deloitte found that retail conversions increased by 8.4% and average order value increased by 9.2%.

Regardless of industry, web performance matters. Google found that users are 24% less likely to abandon sites that satisfy the standard for core web vitals. Vodafone found that by displaying large images 31% faster, sales increased by 8%. The BBC found that for every second it took for its site to load, the broadcaster would lose 10% of its users.

As consumers continue to turn to digital channels, businesses that invest in building a culture of web performance will realize returns of increased conversion and user activity and decreased abandonment by their users.
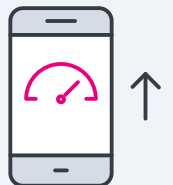
Deloitte found that a 0.1 second improvement in mobile site speed resulted in an:

8.4%
increase in retail conversions

9.2%
increase in average order value

Page Performance Determines Business Success

There is a direct and measurable relationship between web performance and business outcomes:

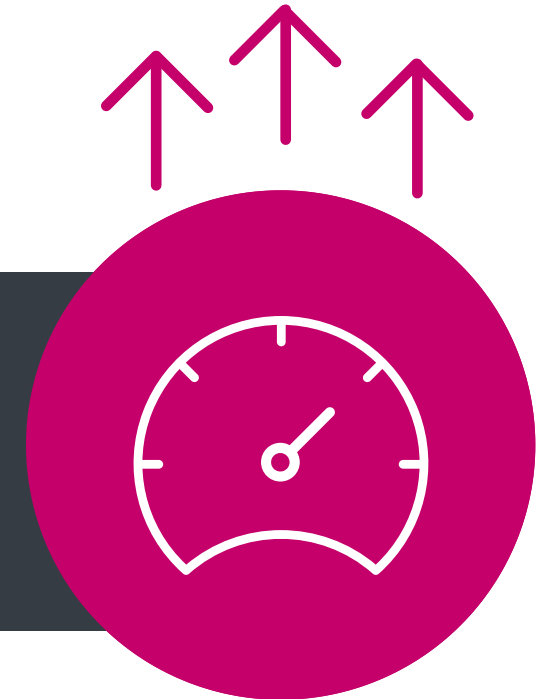| 1s slower load time =	100ms faster load time =	31% improvement in LCP =	Core web vitals met =
10%	**1%**	**8%**	**24%**
increase in user abandonment for BBC	increase in revenue for Walmart	increase in sales for Vodafone	decrease in user abandonment for Google

To deliver great user experiences, modern development teams rely on advanced **synthetic monitoring** to help them proactively test, monitor and optimize web performance. By monitoring user endpoints, APIs and business transactions, back-end developers can know instantly when small changes cause big problems.
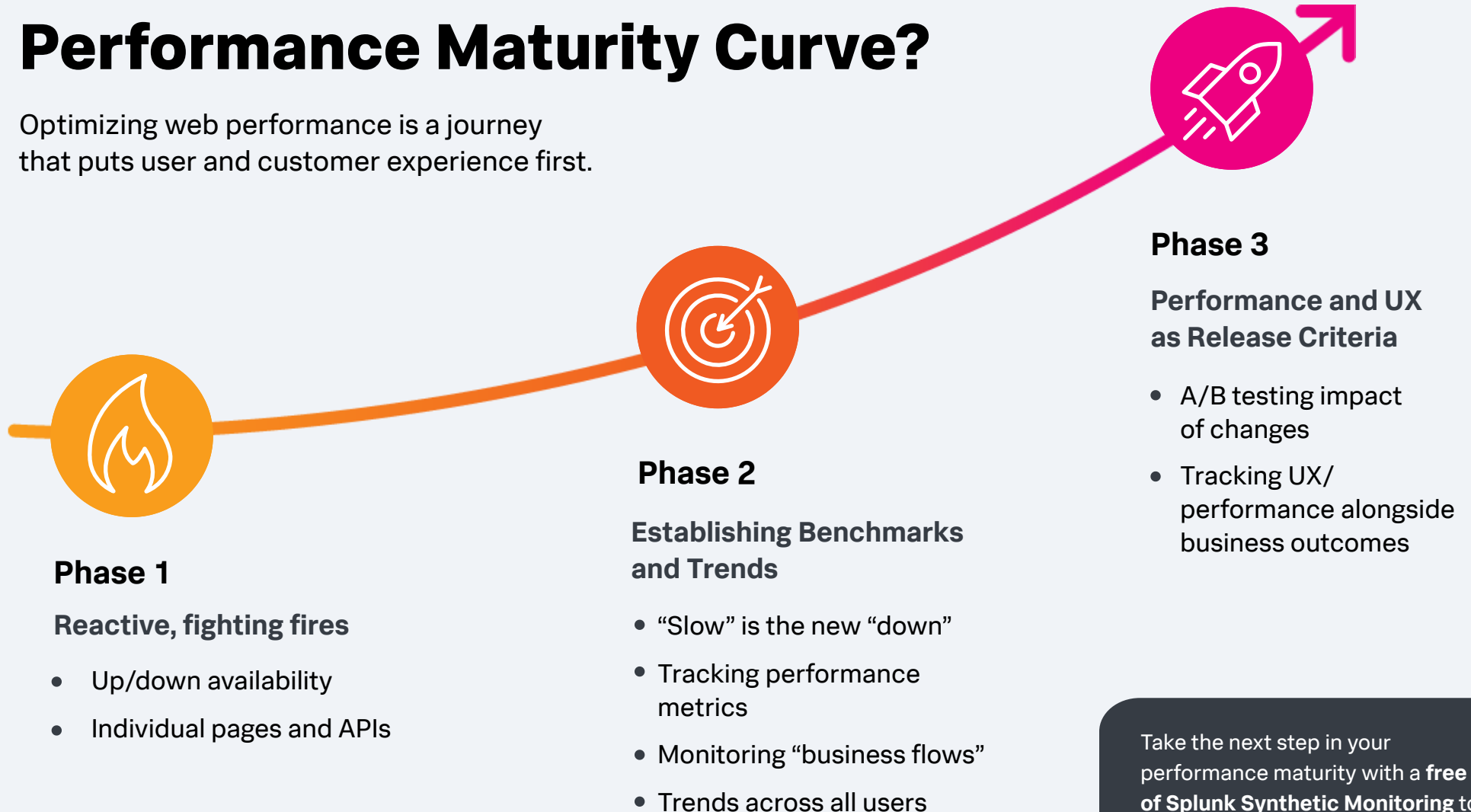
Synthetic Monitoring Defined

Synthetic monitoring tests and measures the digital experience of web applications by simulating traffic with set test variables (e.g. network, browser, location, device). Synthetic vendors provide remote (often global) infrastructure that visits a website periodically and records the performance data for each run.

The measured traffic is not of actual users, but rather traffic synthetically generated to collect data on page performance. Behavioral scripts (or paths) are created to simulate a flow that a customer or end user would take on a site. Those paths are then continuously monitored at specified intervals for performance indicators such as functionality, availability and response time.

Where Is Your Business on the Performance Maturity Curve?

Optimizing web performance is a journey that puts user and customer experience first.

Phase 1

Reactive, fighting fires

- Up/down availability
- Individual pages and APIs

Phase 2

Establishing Benchmarks and Trends

- "Slow" is the new "down"
- Tracking performance metrics
- Monitoring "business flows"
- Trends across all users

Phase 3

Performance and UX as Release Criteria

- A/B testing impact of changes
- Tracking UX/ performance alongside business outcomes

Take the next step in your performance maturity with a **free trial of Splunk Synthetic Monitoring** today.

Free Trial

The Benefits of Having Both RUM and Synthetic Monitoring

Real user monitoring (RUM) and synthetic monitoring offer different views of web performance. RUM helps teams understand long-term trends, and synthetic monitoring helps diagnose and solve shorter-term performance problems.

Synthetic monitoring is able to detect issues that can get lost in the noise of real user monitoring:

Chart: Page Load Time (ms) vs Time (hours), with annotation "Homepage refresh"
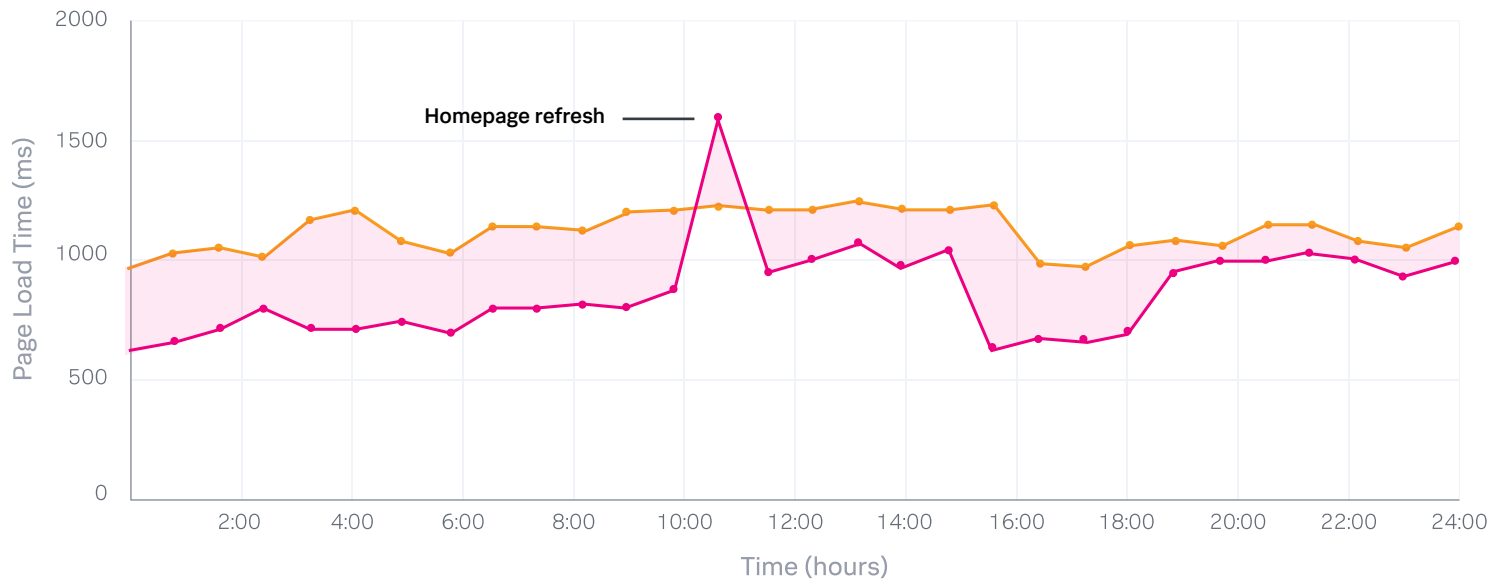
● **Real User Monitoring**
- Field data, actual user experience
- Benchmark page performance
- Segment customer groups (users, devices, browsers, geographies)

● **Synthetic Monitoring**
- Lab data, optimal page performance
- Benchmark page performance
- Proactively monitor user experience

● Benefits of Real User Monitoring

- Understand how your application is being used

- Gain visibility into real geographic user distribution and how it affects their experience

- Understand network or channel distribution and user flow

- Ensure full visibility of application usage and performance

- Correlates real-world performance with KPIs, such as eCommerce revenue gains

● Benefits of Synthetic Monitoring

- Quick and easy setup that doesn't require adding any extra code to your site

- Gain visibility into all front-end content, including third-party content

- Continuous monitoring provides insights into site performance — even during off-hours or period of low traffic

- Test performance in pre-production to confidently deploy updates

- Easily measure your performance KPIs against your competition
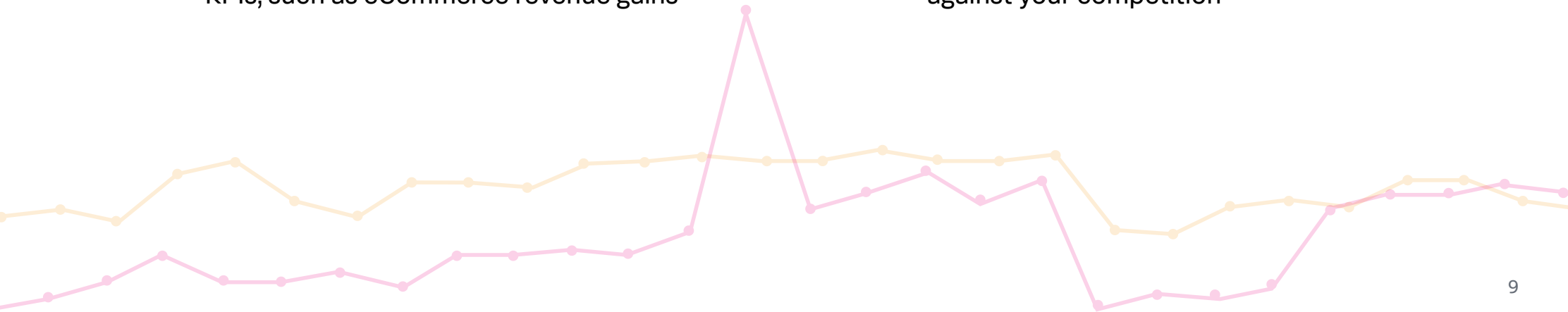
Blue Apron Improves Page Load Time by 30%

In order to improve site performance, Blue Apron's development teams needed a simple way to see what was broken, why it was broken and what should be done to fix it.

With Splunk Synthetic Monitoring, Blue Apron improved site performance by responding to defects quickly and accurately. And with its knowledge base, which includes how-to guides and best practices, Blue Apron elevated performance as a skill set within the team.

View Case Study

> From testing new features to identifying easy performance wins, Splunk Synthetic Monitoring helps embed performance across our development life cycle. We've decreased load time by 30% with Splunk Synthetic Monitoring, which helps eliminate customer-facing issues and optimize web performance.

— **Tom Wilson**
Principal Engineer, Blue Apron

Web Optimization:

Driving Value With a Performance-Focused Culture

Synthetic monitoring becomes even more powerful when it's paired with **Splunk Web Optimization**, which provides the deepest optimization and performance improvement capabilities of any observability or APM platform.

Like an automated performance consultant, Splunk Web Optimization automatically and proactively guides engineers to more than 300 improvement recommendations. Solutions are automatically prioritized and triaged, and include action items for a quick resolution. Video replay and filmstrips help developers view website experience through the eyes of users.

The commitment to collaboration extends to integrations with Jira, Jenkins, PagerDuty and Slack. When you have a culture of performance, everyone works together to create the best customer experience. Not only do front-end engineers and back-end developers collaborate, but business managers have access to performance data that helps drive decision-making and success in the new world of retail.
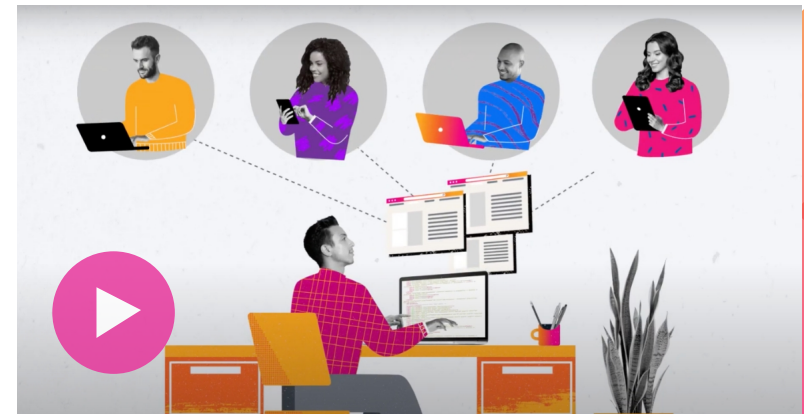
Integrate Splunk products with

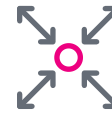# Why Splunk Synthetic Monitoring Delivers Superior Web Performance:

Industry's only solution that auto-updates commercial browsers as new versions are released

Industry's only solution that automatically identifies and provides instruction for remediating 300+ performance problems
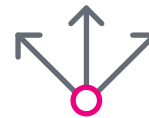
Open source scripting

Out-of-box alert integrations with several systems

Slack, ServiceNow, Splunk On-Call, OpsGenie

48 + UX metrics, including web vitals
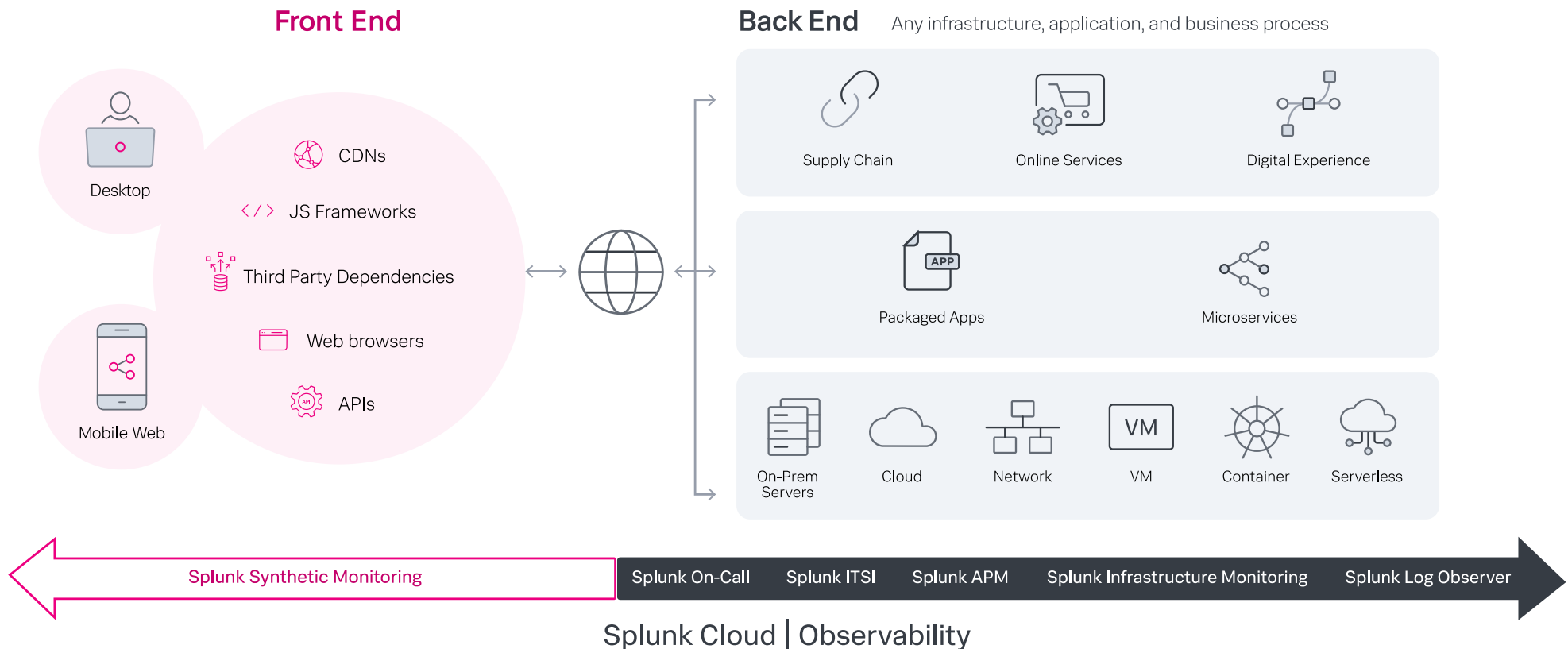
Easily push raw data into other BI systems

Waterfall, video and filmstrip of every monitor

Strong CI integrations for shifting left into dev/QA workflow

End-to-End Testing for the Best Digital Experiences

Splunk Synthetic Monitoring makes sure user experiences are issue-free and integrates seamlessly with Splunk Observability so front-end and back-end development teams can work together to deliver best-in-class web performance.

Front End

Desktop

CDNs

JS Frameworks

Third Party Dependencies

Web browsers

APIs

Mobile Web

Back End Any infrastructure, application, and business process

Supply Chain

Online Services

Digital Experience

Packaged Apps

Microservices

On-Prem Servers

Cloud

Network

VM

Container

Serverless

Splunk Synthetic Monitoring

Splunk On-Call   Splunk ITSI   Splunk APM   Splunk Infrastructure Monitoring   Splunk Log Observer

Splunk Cloud | Observability

Try Splunk Synthetic Monitoring Today

Try Now

splunk> turn data into doing™