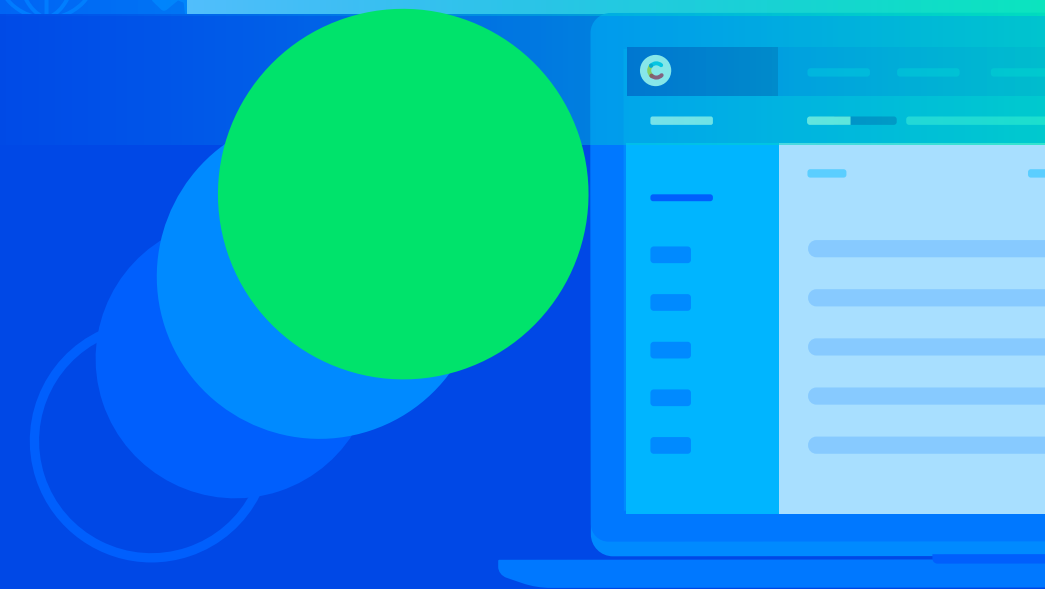
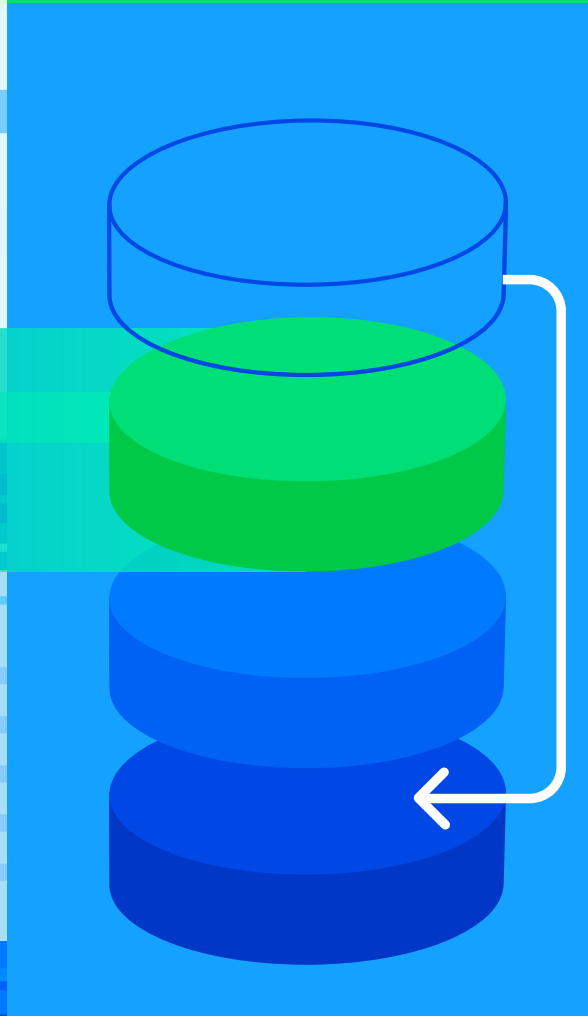
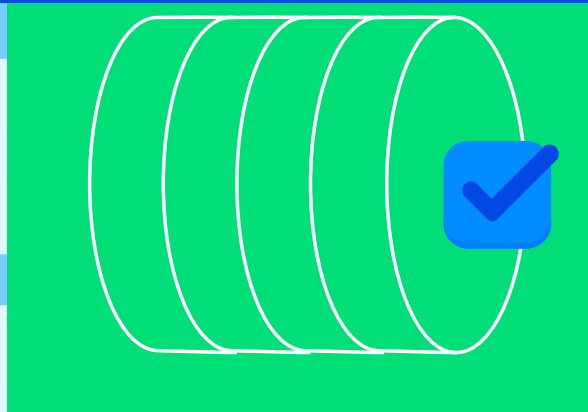


# How to assess the performance of your composable architecture

Measure microservice success against five value pillars





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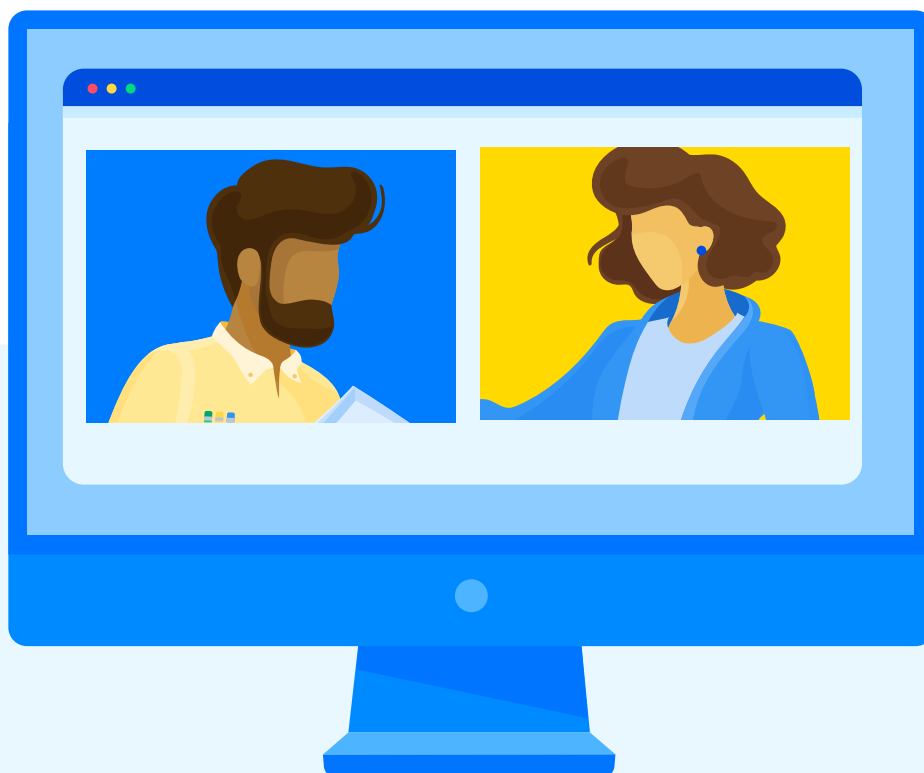
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# Introduction

Welcome to the digital-fast era – around you you'll see hand-held ecommerce shopping, mind-bending virtual reality experiences and personalized content that evolves with your wants and needs. Who's shaping these trends? Your customers. On-demand experiential customer interactions are forcing brands to be immediately responsive and consistently adaptive. To keep pace, digital teams have turned away from monolithic solutions favoring the microservices of a composable architecture. The flexible, modular capabilities of composable architecture give teams the ability to build digital experiences that are better, faster and infinitely scalable. The question now is, how do digital teams show the value of these strategies and technologies in a way that can be documented and easily digested?

Contentful's content platform is the foundation on which thousands of brands build their composable architectures. Through collaboration and conversation with companies framing how digital-fast operations are done today, we've learned a few things about tracking and measuring value.

In this white paper, we'll cover five value pillars for demonstrating the performance of composable architecture and technologies with examples of KPIs and business outcomes to track their value.



# Some quick definitions

## Composable architecture

Traditional digital experience stacks rely on monolithic applications that cover an array of business capabilities but offer little flexibility. It can be difficult to deviate from the limited offerings of these suites, which can be restrictive and constraining. The proliferation of digital channels and the pace at which customers expect to engage with brands on those channels have forced companies to prioritize flexibility, agility and speed. Composable architecture breaks the capabilities of all-inclusive monolithic suites into individual microservices that can be constructed, deconstructed and reconstructed again and again to meet evolving digital needs. These microservices are connected through APIs to create composable architectures. Built upon a content platform like Contentful, these architectures use content to power engaging, scalable customer experiences.

“By 2023, organizations that have adopted an intelligent composable approach will outpace competition by 80% in the speed of new feature implementation. No piece of technology that you’re going to use will solve all your problems. You have to think about what you’re trying to accomplish and how much of that can be accommodated by the piece of software that you’re using.”

[Gartner](#)

## Business value

Composable architecture and the microservices they include are often evaluated based on their features (e.g., automation, integration, customization). The teams and strategies that deploy a composable approach, however, are evaluated based on the value they create for the business. Digital teams need to go beyond anecdotal reporting to quantify exactly how successful (or dare we say unsuccessful) their technologies and strategies are at moving the needle on business objectives. The first step to understanding value is determining what to measure and how best to measure it.

## Five value pillars to measure your microservice tech stack

When researching and shopping for new technology, the aspects you consider to be important – like whether the technology is agile, customizable and able to grow with your company in any and all directions – are the same parameters you should measure when qualifying how effectively your technology delivers on those expectations.

These five value pillars can be used as a general framework to assess your architecture's performance.



### Speed

Launch and iterate quickly



### Flexibility

Adapt and experiment



### Extensibility

Fit your business



### Scalability

Start small then go big



### Reliability

Low risk, very resilient

## SPEED

### Seize the opportunity

Customers want it all and they want it now – which is why speed is the first value to consider with your technology. Your tech should enable digital teams to start and complete projects as quickly as possible. We're talking speedy implementation, speedy launches and speedy deliveries – you should measure it all.

### Speed value categories

#### Time to value

Instead of building everything by hand, you have the option to build right out of the box. Developers are equipped with tools including ready-to-use APIs, extensive documentation and educational resources that offer opportunities to create customized capabilities from scratch or build them on top of existing templates.

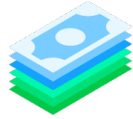
#### Time to market

You have the power to launch new services, products or experiences at the pace of customer demands. To stay one step ahead of competition, the architecture you adopt should facilitate quick creation, deployment and iteration of your newest brainchild. Slow time to market runs the risk of pushing project delivery so far into the future that they might no longer be relevant, wasting time and money.

#### Speed of operations

This refers to [task automation](#). Doing things manually on a case-by-case basis is no longer efficient – it's monotonous and taxing. Automation saves you and your team time and energy which can be allocated towards more strategic efforts and experimentation.

## Example speed KPIs



### Time to value

- Time to first experiment
- Time to first launch
- Time to first result



### Time to market

- Time of builds
- Conversion rate
- Impressions



### Speed of operations

- Percent of product built
- Percent of processes automated
- Time of migrations

In adopting a composable architecture, Tokyo-based cosmetics brand Shiseido cut developer costs and time to launch new sites in half. [Learn about the “Lean Experience Stack” they employ and how you can replicate it.](#)



# SHISEIDO

## FLEXIBILITY

### Customize to your current and future needs

As fortune-telling is an uncommon, and unreliable, talent, it's difficult to tell what the future holds and harder to plan for it. For this reason, it's important that the architecture you adopt is customizable to your business and favorite technologies as they stand today, tomorrow and in two years. A flexible architecture means that your offerings, experiences and services are not limited by rigid, aging tech but can evolve with changing business directions and digital trends. Evolving with the times and trends makes your brand discoverable so customers don't have to go searching for it – at least not very far.

#### Flexibility value categories

##### Technology debt

Are your microservices stacked to enhance functionality across your composable architecture? You should be excited by the idea of adding and experimenting with new technology instead of feeling locked into aging processes due to previous tech or architectural choices.

##### Developer satisfaction

Teams can code in their programming language of choice and follow the data model that fits their current preferences. The ability to build in a tool-and language-agnostic environment increases developer satisfaction and the potential of their output – both important in retaining the strongest members of your tech team.

##### Employee experience

Your team is productive and spends most of their time doing what they are trained to. And, because creating great customer experiences is a team sport, they're able to collaborate within a single platform. Inflexible, opinionated technology limits experimentation and the envelope-pushing projects that digital teams love. Back to tech debt, flexibility ensures your people spend less time on workarounds and more time on strategic initiatives.



## Example flexibility KPIs



### Technology debt

- Percent of functionality used
- Percent of process redundancy
- Number of workarounds



### Developer satisfaction

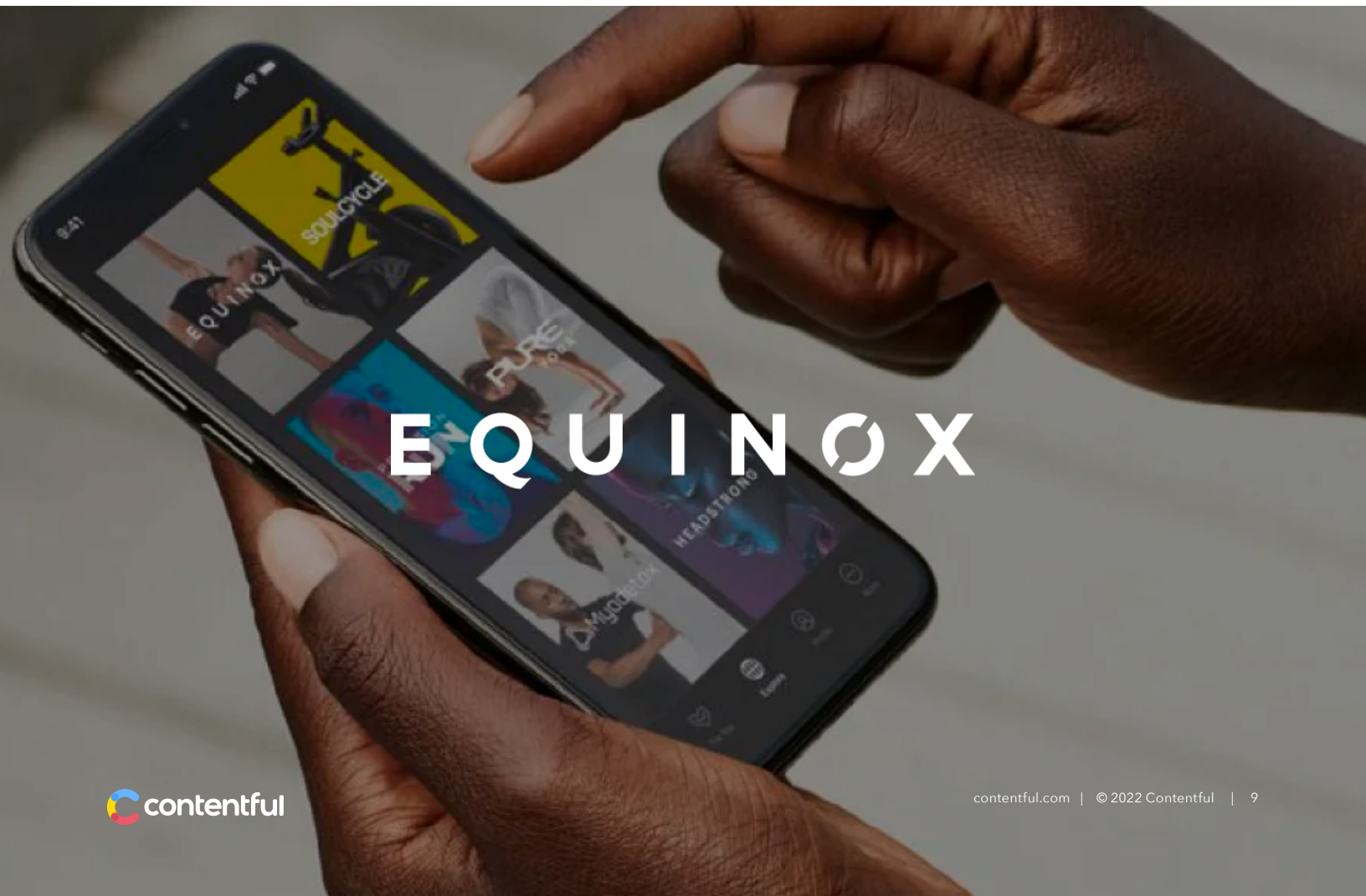
- Speed to change data models and code
- Number of programming languages available
- Developer retention



### Employee experience

- Percent of deadlines met
- Team member satisfaction
- Lag time between handoffs

To align with rapidly developing digital fitness trends, Equinox needed technology that offered enough flexibility to launch an app and online platform to support virtual cycling classes. [Find out how they launched both in record time with the same technology.](#)



## EXTENSIBILITY

### Integrate tools and workflows

The Swiss Army Knife is celebrated for its diverse capabilities. With the basic model you can cut an apple, remove a sliver, file a nail and put glue in hard-to-reach places. While it can do a lot of things, it doesn't do any of them as well as a purpose-built tool. This is the same difference between a suite approach and an extensible microservice approach to your architecture. Extensibility allows you to connect targeted technology seamlessly across your stack to meet digital builder preferences, workflow needs and, of course, customer expectations.

#### Extensibility value categories

##### Operational efficiency

Teams can automate content and data migrations. In optimizing operations, teams utilize features like workflows, user roles and [tasks](#), which offer clarity in project coordination and collaboration. Scaling also means it's easy to add new users and alter roles as your organization grows.

##### Integration

You can meet new and expanded needs easily with integrations from a production-ready [app framework](#), ready-to-use SDK library or marketplace. With these functionalities there is minimal learning curve. Your in-house team can build the perfect set up quickly – no need to outsource a pricey platform-specific specialist to do the work.

##### User customizations

Extensible technology offers interface customization options to help brands work in the format they prefer with the data and content they reference and use. Extensive user interface customizations boost team member satisfaction and aid with productivity.

## Example extensibility KPIs



### Operational efficiency

- Number of users
- Governance capabilities
- Workflows automated



### Integrations

- Number of app integrations
- Time to approve and launch
- Capital expense



### User customizations

- Percent of UI customized
- Team member satisfaction
- Data embedded

When ALDO Group outgrew their monolithic CMS and transitioned to one with composable architecture, they were surprised by the extensibility that reusable content and quick edits offered. [Find out how these benefits enabled teams to work on more important and exciting initiatives.](#)



## SCALABILITY

### Go big or go big

What does a budding ecommerce store and established technology powerhouse have in common? They both want to grow. Scalability means your technology enables growth in different directions – like across geographies, new platforms or emerging customer trends – without starting from scratch. It's all about getting more mileage out of what you have through reuse rather than recreation. For customers, it means your brand is available to them at a global scale.

### Scalability value categories

#### Market reach

This is company dependent but focuses on your brand visibility within an industry and around the globe. Attracting customers worldwide requires localization features like translation services, the option to segment content and reliable delivery methodologies. As you reach more markets, organic visits will improve SEO rankings. With better rankings, you can begin to lower paid search and advertising spend.

#### Personalization

With personalization, you offer customized experiences based on a customer's interests, behaviors or location. Reusable content paired with easy-to-use editorial features makes addressing personas straightforward. According to a McKinsey study, personalization has been linked to 5-15% increases in revenue.

#### Reusability

This is the key to scalability. It's found in the ability to create content once and use everywhere. This is often achieved through [structured content](#), which deconstructs content into blocks that can be restructured to create new experiences and fit new channels. This is also found in repeatable processes through seamlessly integrated microservices.



## Example scalability KPIs



### Market reach

- Number of locales
- Multilingual SEO
- Page load time



### Personalization

- Customer conversion
- Percent of returns
- Cost of lead



### Reusability

- Percent of content reused
- Percent of content automated
- Frequency of inconsistent content

SWAROVSKI OPTIK used Contentful to scale their operations by localizing content to global customers. [Discover how they scaled and customized content to satisfy customers in 92 countries.](#)



## RELIABILITY

### Avoid risky business

Innovation, experimentation and the integration of multiple technologies creates vulnerabilities for security, privacy and compliance. Reliability refers to the resiliency of your tech against outages, data loss and increasing compliance standards. It also refers to consistent and predictable digital performance during high-use, high-traffic times – something your customers really care about.

### Reliability value categories

#### Security

Reliability can translate to unlimited storage and regular data backups with limited developer dependence. The first two items mean brands can launch and roll back projects knowing that should something break, a previous version is available. The most reliable technology today is cloud-based. With everything housed online, teams can share and collaborate on internal assets without excessive downloading or sending.

#### Dependable delivery

This speaks to the time it takes for a page to load for individual users. Reliability means that latency is limited or eliminated – downtime occurs infrequently, if ever. Content delivery networks, which store cached versions of your site at servers located near users, help achieve this. If traffic overwhelms one server resulting in error, another in the network will fill the gap.

#### Digital experience performance

Fast page load times, a product of dependable delivery, lead to improved digital experiences for customers. When customers can get the experiences and information they want quickly and predictably, it increases the authenticity and value of brand engagements.

## Example reliability KPIs



### Technology security

- Number of breaches
- Frequency/scope of data loss
- Storage capacity



### Dependable delivery

- Page load time
- Number of services available during high-traffic
- Number of site errors



### DX performance

- Impressions
- Organic sessions
- Bounce rate

Contentful's CDN and reliability helped Loblaw Digital attract and retain enough customers to triple their sales. [Read about their success on our blog](#) or listen to a discussion about it with [this webinar recording](#).



# Using content as the foundation of your composable architecture

Content is the heart of the modern digital experience, and a content platform is the heart of the modern tech stack. A [cloud-based API-first content platform](#) extends the benefits of composable architecture and is designed to deliver against the same five value pillars featured in this white paper.

The [Contentful content platform](#) is built for easy integration across any composable architecture. It offers you the flexibility to build the UI your team wants and the scalability to drive the omnichannel experiences customers expect (we're looking at you [ecommerce](#)). With Contentful's exposed tooling, [frameworks](#) and [App Marketplace](#), digital teams can integrate with or build out the capabilities they need.

Get a tour on how Contentful lays the foundation of your composable tech stack

Tour Contentful



Go straight to building in Contentful's free Community space

Build your first app

