# Computing at massive scale

## Performance and scalability in Zoho Creator
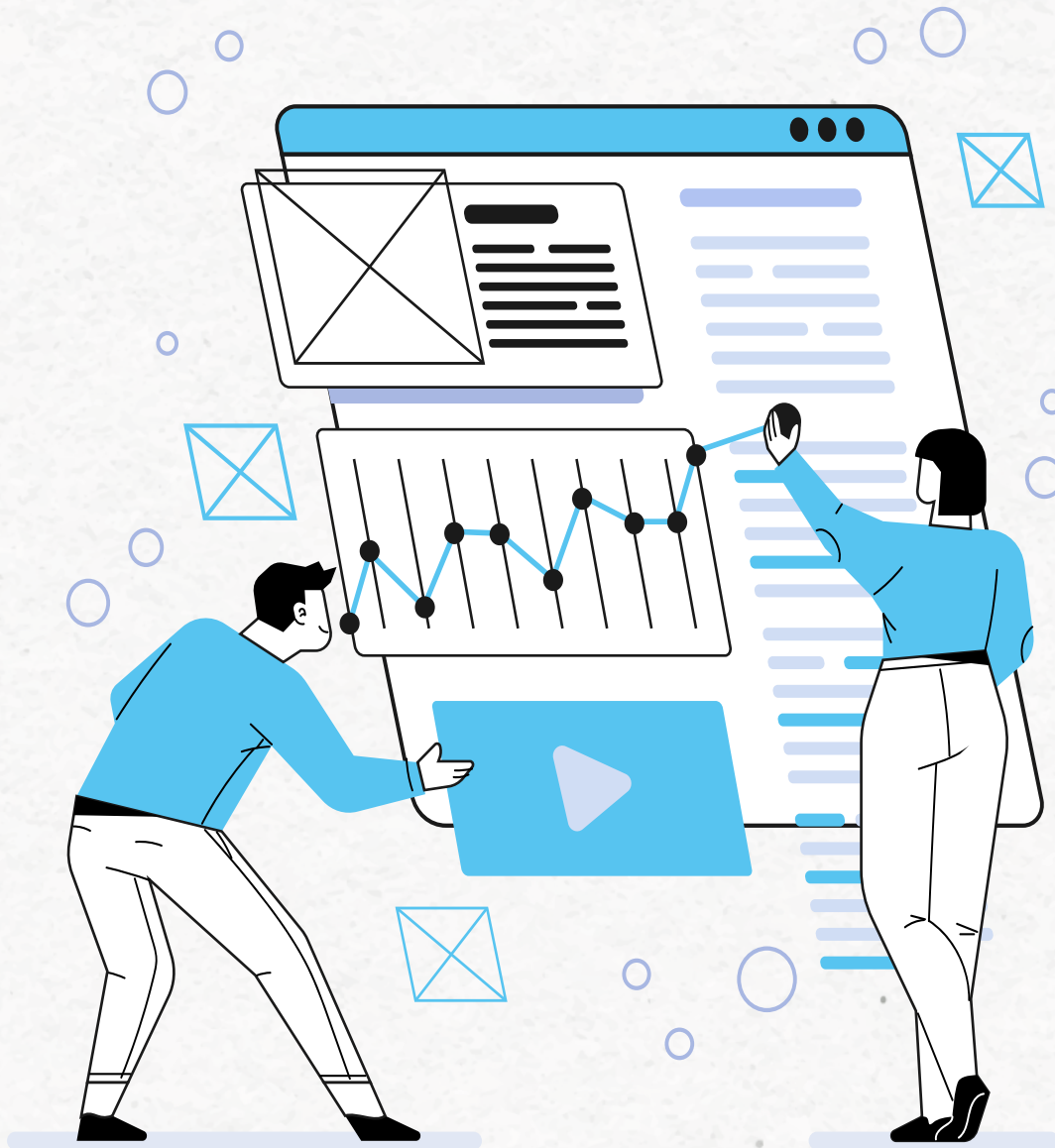
# Table Of
# **Contents**

# Overview

With nearly 100 million users worldwide accessing Zoho services, organizations of every shape and size count on Zoho's infrastructure to meet their needs. And we believe it's important you understand how our infrastructure leverages enterprise-grade cloud technology to scale fluidly as your business grows.

# About Zoho Creator

## What is Zoho Creator?

Zoho Creator is a powerful low-code application development platform that enables you to deliver web and mobile applications. 13,000+ organizations, including many of the world's largest enterprises, use Creator applications to manage their daily operations by streamlining processes, projects, and tasks.

## Built with a purpose

The future of work is digital, and businesses of all sizes need to transform fast. At Zoho, we believe every business should be able to conduct their work operations with innovative, custom-built software. That's why we built Zoho Creator, our intuitive low-code development platform, so companies across industries can transform their ideas into applications to encourage rapid growth and competitiveness.

# One platform to build any workplace app

Zoho Creator is a powerful low-code application development platform that enables you to deliver web and mobile applications. 13,000+ organizations, including many of the world's largest enterprises, use Creator applications to manage their daily operations by streamlining processes, projects, and tasks.



**Zoho Creator Platform as a Service**
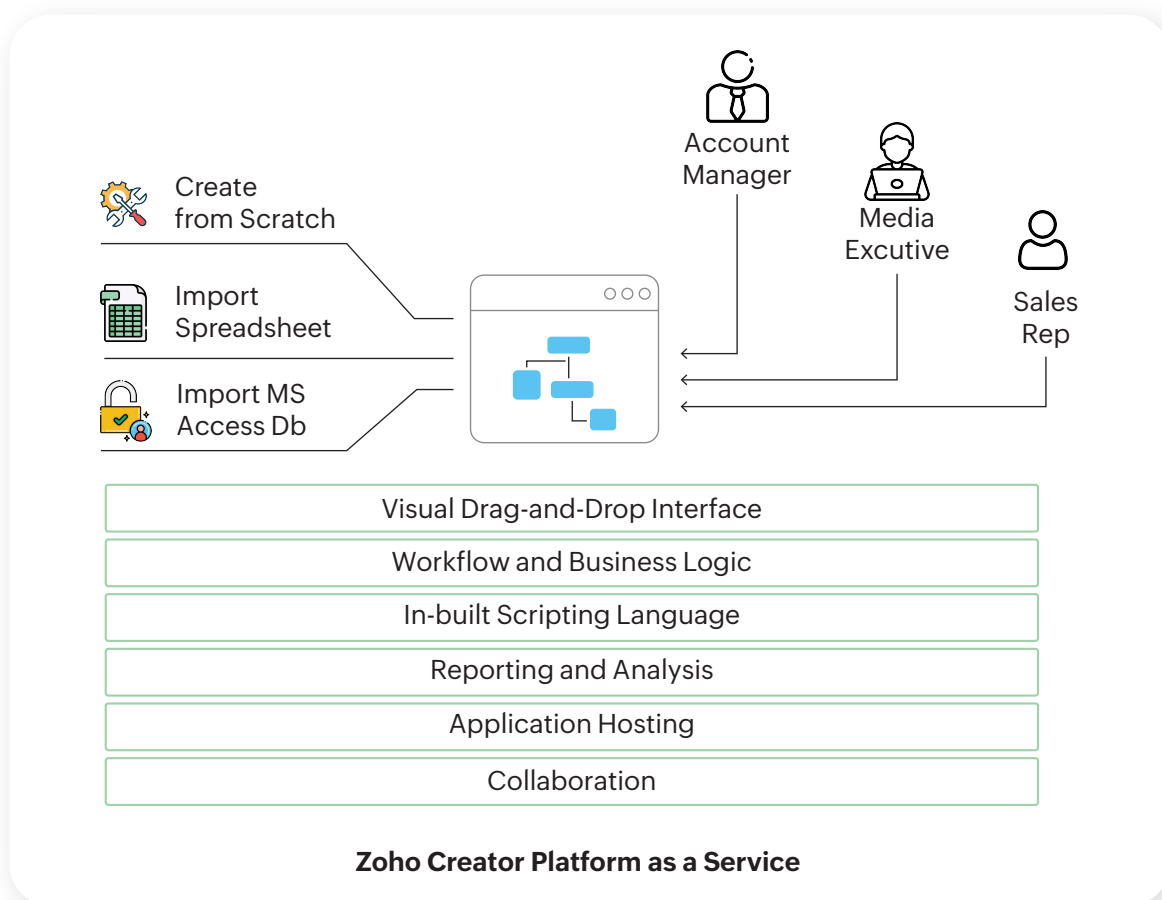
Zoho Creator provides many options for improving your business:

- As a robust application development platform, Creator can act as a process management solution for any industry. Business workflows can be easily configured using our simple GUI-based workflow builder.

- As a robust application development platform, Creator can act as a process management solution for any industry. Business workflows can be easily configured using our simple GUI-based workflow builder.

- Zoho Creator can function as a data broker: a middleware application enabling you to send and receive information between multiple third-party applications, Zoho applications, or a mixture of both.

- Creator can function as a tightly integrated Zoho application-extension, so other Zoho applications can execute *custom functions*, which are snippets of code in Creator's Deluge programming language.

- At the heart of Creator is our scripting language, called Deluge. Deluge is powerful, while still being accessible to users with little or no programming experience.

- When you build an app on Zoho Creator a mobile version is automatically created along with it, without any additional development work, and optimized for the latest smart phones and tablets.

- Zoho Creator supports both cloud and on-premise options for deploying applications. Based on the location, data, and whether it's behind a firewall or in the cloud, either one can be chosen—but regardless of the version, you'll have the flexibility to run your applications seamlessly.

# Scalability and performance

## What is scalability and why does it matter?

Market demands are never static. As traffic flows in and out, the infrastructure on which your apps run must be sturdy enough to handle it.

Scalability refers to the system's ability to increase its throughput while maintaining fast response times. For example, if the number of real-time users is doubled, the system should be able to sustain twice as much throughput without a delaying response time.

## Massive scalability with Zoho Creator

All Zoho services, which serve 100M+ users worldwide, run on highly scalable architecture, infrastructure, and framework. Zoho Creator applications run on the same infrastructure as these services.

We provide a proprietary cloud-native platform that was specifically designed to scale according to the needs of an application. Our servers scale automatically, according to real-time traffic needs, so your apps grow right along with your business. Our fast-acting load balancers distribute network traffic efficiently across servers for the quickest response possible. There's no need for administrator-controlled manual scaling.

In the case of an increase in load, Zoho Creator provides horizontal scalability by provisioning additional front-end servers to the environment. This makes the system process more requests, thus increasing the overall throughput.

All parts of the application scale automatically—from user request management and storage resources to computational abilities. All applications are modular—users can easily add forms, reports, dashboards, functions, and integrations easily, without reinventing the wheel.

# Ensuring high availability

## 🌐 Zoho's global presence

We host your data in best-in-class data centers across the globe. When you sign up for Zoho, you're given the option to choose the country you're signing up from. In order to make it easier for you, that field is selected by default based on your IP address. Based on the country chosen there, the corresponding data center is chosen for your account. *View the locations we service and their associated datacenter.*

## 📊 99.9% availability

We're liable for ensuring that our services are available as per our uptime SLA of 99.9%, which includes handling hardware/software failures and threats like denial of service attacks. The live status of all Zoho services can be monitored at *https://status.zoho.com/*

# High availability architecture

Our servers are housed at geographically isolated data centers, with best-in-class backup for quick disaster recovery. Architected with optimal fault-tolerant techniques, we deliver uninterrupted service so our users never lose access to their apps. Our data centers are also built with high redundancy, to reduce potential downtime and maximize the performance of your apps.

# Efficient traffic distribution

Our load balancers automatically distribute incoming traffic to the app servers. We then have a different set of app servers just for processing API and web requests. On top of that, there's an event-based system to constantly monitor the requests and notify our team in case of anomalies.

# Centralized management

Dedicated tools are available for efficient monitoring, resource management and troubleshooting. Scaling operations are abstracted and performed by us at a platform level, and we scale our resources based on their usage. Depending on requirements, we can take care of provisioning clusters and app servers manually.

# Disaster recovery and business continuity

Application data is stored on resilient storage that's replicated across data centers. Data in the primary DC is replicated in the secondary in near-real time. In case of failure of the primary DC, the secondary DC takes over and the operations are carried on smoothly, with minimal or no loss of time. Both centers are equipped

with multiple ISPs.

We also have power back-up, temperature control systems, and fire-prevention systems as physical measures to ensure business continuity. These measures help us achieve resilience. And in addition to the redundancy of data, we have a business continuity plan for our major operations, such as support and infrastructure management.

## Batch processing

Zoho Creator includes an independent *asynchronous scheduler engine* for executing actions that don't require user interaction. This helps our systems to process a large amount of information in batches. The load distribution of these batches is controlled by the scheduler engine.

*Schedule workflows* enable the creation of workflows, which can run in the background without user intervention, and can be scheduled to run as resources permit.

## Stability measures

We have proactive monitoring and alert systems to detect and flag anomalies. Application performance and scaling is taken care of by the platform, thus freeing developers from infrastructure and app maintenance.
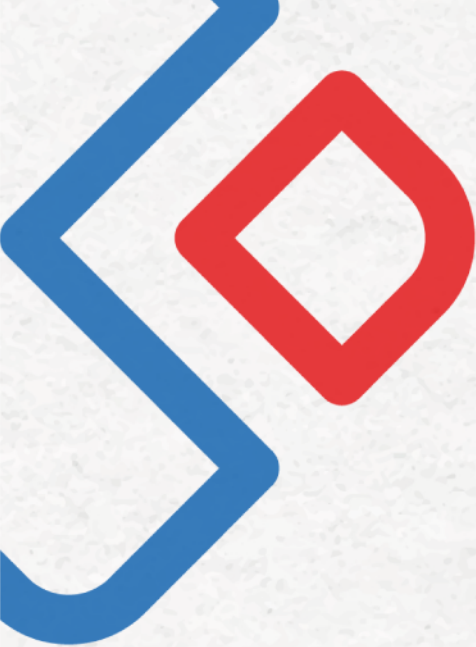
# Contact us

Our infrastructure performance and scalability practices are built on the foundation of the trust of 100 million users. We'll always continue to work hard to deliver best-in-class services for our users.

**For any further queries on this topic, please write to us at security@zohocorp.com.**
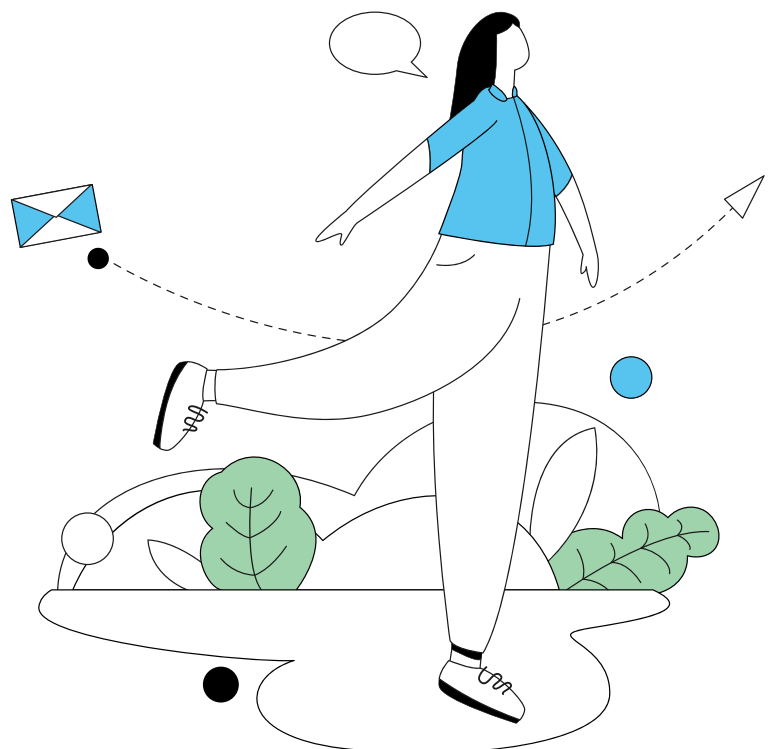
# Zoho Creator

www.zoho.com/creator

We'd love to talk! Reach out to us:
hello@zohocreator.com

zohocreatorofficial          zohocreator          showcase/zohocreator