

Scaling Your SaaS App for Growth

A Proven Architecture for Scale and Resiliency

Businesses using a Software as a Service (SaaS) model allow customers to access and use software and software services over the Internet, as opposed to purchasing the software itself and installing it on their own server or servers. SaaS services offload management of mission critical applications like HR and CRM apps, and often cater to IT budget constraints as SaaS offerings shifts the financial model from capital expenditure (CapEx) to operating expenditure (OpEx). This business model shift frees enterprises from procuring equipment, software licenses and operating expensive data centers.

SaaS-based companies report easier administration and customer service for products because all users are upgraded and maintained at the same time, using the same software versions, updates and patches. Depending on the service, the SaaS app may be hosted in a data center, or distributed in a private or third-party cloud. Regulatory compliance and security considerations will dictate how the SaaS architecture is designed.

A successful SaaS company may experience exponential growth in a short period – growth in the number of users and in the amount of data being entered and retrieved. As the amount of data grows, SaaS companies need to be ready to expand their capability to deliver data quickly, securely, and reliably.

Enter ScaleArc. Our database load balancing software transparently delivers scalability and agility that allows SaaS companies to meet and exceed performance demands, both expected and unplanned. Here are a few ways ScaleArc is enhancing service delivery for SaaS providers:

- **Scale Infrastructure with Business Growth**
ScaleArc's load balancing boosts SaaS performance, increases uptime, and allows for a more robust, scalable infrastructure. In a distributed data model, ScaleArc balances traffic across servers to maintain user experience and functionality, and monitors the replication lag between primary and secondary servers. ScaleArc uses that information to intelligently distribute queries across secondary servers, sending reads only to servers with current data

- **Maintain Uptime and Data Consistency**

ScaleArc enables 100% uptime for SaaS apps. ScaleArc is unique in delivering automatic database failover that is transparent to the application, shielding SaaS apps from the downtime and preventing application errors while keeping users logged in and productive. ScaleArc instantly and transparently routes database traffic around downed servers – even across multiple data centers – for maximum uptime.

For highly transactional applications, ScaleArc further ensures data integrity with powerful failover capabilities. If a query dies in the middle of a transaction, ScaleArc automatically alerts the application to retry the action. By not committing writes on behalf of the database, ScaleArc protects transactional integrity during failover. Additionally, by leveraging its surge queue, the ScaleArc software can hold incoming queries in queue while the new primary take over, dramatically reducing application errors that typically occur during database failover. As a result, SQL database failures become virtually unnoticeable in a ScaleArc deployment.

ScaleArc scales transactions across multiple servers, increasing the query volume capability. Secondaries could be used to serve only data while ScaleArc performs read/write splits automatically on behalf of the app, with no code changes. This instant scalability delivers high capacity without compromising transactional integrity.

- **Offer New Services**

ScaleArc is transparent to SaaS applications. This transparent approach means that no application changes are required to take advantage of ScaleArc's ability to scale, optimize, or add resiliency to new or existing application and services. Furthermore, transparent caching and real-time analytics enables fast implementation of new value-added services that support tiered service offerings. Because developers do not need to touch applications to embrace the benefits of ScaleArc, development time and expenses are reduced, and time-to-market for new application roll-out can be markedly decreased.

ScaleArc can be completely managed by a RESTful API. Since new service creation depends on simply a handful of API calls into ScaleArc, providing a new database infrastructure setup and configuration takes minutes.

“ScaleArc has allowed us to drastically simplify our IT architecture and enables us to develop our games faster. With ScaleArc, we don't have to touch the applications, and we get enormous benefits of scale.”

– John Todd
senior director of operations



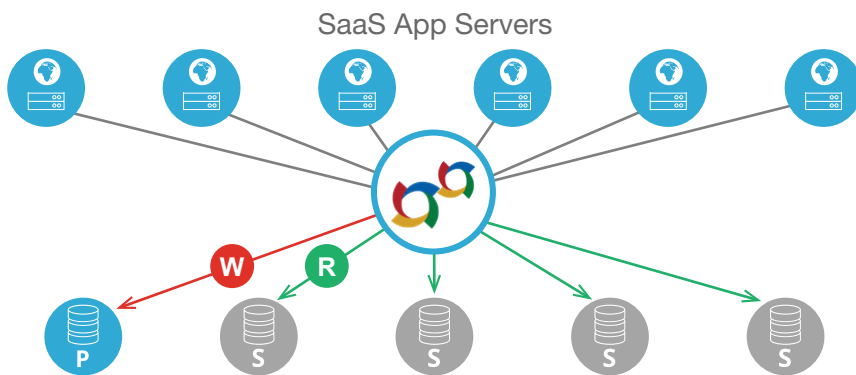
ScaleArc Benefits a SaaS Approach

ScaleArc's database load balancing software deploys transparently between the SaaS application and the SQL database infrastructure. ScaleArc leverages database replication and failover to enable continuous availability of the app. ScaleArc enables SaaS companies to:

- Scale on demand to keep up with growth and traffic surges
- Deliver excellent user experience to reduce customer churn and to garner customer loyalty
- Operate at 100% uptime with automatic failover, delivering zero downtime for maintenance, upgrades, and security updates
- Increase performance through read/write split that turns idle secondary servers into active servers
- Deploy real-time analytics and reporting to identify queries that are impacting performance.

Conclusion: Faster, Simpler, Better SaaS with ScaleArc

ScaleArc provides an ideal solution for SaaS companies by reducing service costs, improving manageability, and increasing service levels. Leveraging ScaleArc, SaaS applications can transparently deliver massive scalability and availability, local data delivery, automatic failover, 100% uptime with zero-downtime maintenance, and finely granular usage-based billing.



The logistics business is so competitive – if we aren't processing an order, a competitor is. So we can't afford to have our platform down even for a minute. If it is, we don't just lose that order – we could lose the entire account. With ScaleArc, the team was excited to have redundancy right in the product. ScaleArc's automated failover capabilities detect database failures and perform role changes within the cluster. ScaleArc is the only solution that provides automatic failover by handling both replication and client connections."

– vice president
development and technologies
a field services company



2901 Tasman Drive, Suite 205
Santa Clara, CA 95054
Phone: 1-408-780-2040

info@scalearc.com
www.scalearc.com



ScaleArc is the leading provider of database load balancing software. The ScaleArc software inserts transparently between applications and databases, creating an agile data tier that provides continuous availability and increased performance for all apps. With ScaleArc, enterprises also gain instant database scalability and a new level of real-time visibility for their application environments, both on prem and in the cloud. Learn more about ScaleArc, our customers, and our partners at

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