RadPad

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Boosting performance and consistency for property searches to acquire and retain loyal customers

Overview

The need

RadPad aims to make renting so much easier. From finding an apartment or home to rent, to paying the rent, RadPad is redefining how millennials rent. As user numbers grow, how can the company optimize search performance?

The solution

RadPad migrated from hosted MongoDB clusters to a three-node IBM® Cloudant™ Dedicated Cluster, gaining a scalable, cost-effective and low-maintenance NoSQL database-as-a-service solution.

The benefit

Today, RadPad has eliminated time-out issues for searches, improving service levels and accelerating complex property searches. Reduced administration enables more focus on improving the user experience.

Born out of the frustration of the rental process, RadPad is streamlining the mobile rental experience, from searching for, and discovering, that new apartment or home to rent, to applying for an apartment and paying the rent.

As a start-up, RadPad had to use its investor capital wisely to acquire, grow and retain a loyal customer base and create a thriving business. In a crowded digital marketplace, achieving these goals depends on the company's ability to offer a reliable and responsive service to consumers, while keeping tight control over operational costs.

RadPad is aimed at – and heavily used by – tech-savvy millennials, who demand exceptional performance and reliability. As the company prepared to launch a new iteration of its map-based search service, it was looking to optimize the performance and efficiency of the underlying database.

Tight budgets are nothing new at start-up companies – but IBM solutions are not out of reach, as Jonathan Eppers, Founder and CEO at RadPad, explains: "Our Cloudant sales person worked hard to get us the best possible return on our investment, and the whole support staff and the sales team have been awesome in helping us achieve our goals."

Solution components

Software

- IBM® Cloudant™ Dedicated Cluster

After initially using PostgreSQL, the company adopted the more flexible MongoDB to "flatten" its listing data and make it easier to serve to apps or to web users. However, there were limitations in the amount of data the platform could handle, and some searches on larger data sets were timing out – potentially leading to user dissatisfaction.

Jonathan Eppers, Founder and CEO at RadPad, recalls: "Cloudant reached out to us at just the right moment. We'd heard good things about the technology, and spending a couple of weeks working with a test account convinced us that it was the right path for our future."

Great user experience

RadPad migrated its property search database to a three-node IBM® Cloudant™ Dedicated Cluster. This change provides a NoSQL database-as-a-service solution that delivers the high availability, elasticity and reach of the cloud. The IBM Cloudant solution stores data as self-describing JSON documents, and its RESTful API makes every document accessible through HTTP.

"Deployment was extremely rapid," says Eppers. "The Cloudant support personnel were excellent, and we had already flagged and resolved potential issues during the testing phases, so the migration went smoothly."

Using the RESTful API allowed RadPad to transition much of its code to work directly with IBM Cloudant rather than first going through the API for its Heroku hosted infrastructure. Particularly for the website, this simplification of the architecture increases performance and helps eliminate time-out issues.

"When a user performs a search, we return the first page as soon as possible, then load the rest of the results asynchronously in the background," says Chris Gutierrez, Engineer at RadPad. "We take advantage of the time the user spends browsing the first page of results to accelerate the whole process of finding a great property. The RESTful API lent itself more to this approach, helping us improve the user experience, especially on the web."

"With IBM Cloudant, we can focus on making RadPad's user experience even faster and smoother."

— Jonathan Eppers, Founder and CEO, RadPad

Consistently fast

By loading additional data in the background, RadPad offers its users smooth and consistent performance when panning in the map view to see additional properties beyond the top results.

"Since migrating to IBM Cloudant Dedicated Cluster and making the other changes to our architecture, we have seen a huge speed increase," says Eppers. "And, equally important, the performance is super-consistent, so RadPad users get a great experience at all times."

As RadPad grows its business and opens in new cities across the U.S., its IBM Cloudant solution will scale quickly and seamlessly. "Spikes in traffic have not been an issue for us, and we are confident that the platform will grow to meet our big ambitions," says Chris Gutierrez. "Using IBM Cloudant has helped us to make and release new functionality faster, largely because the flexibility of the solution means we don't have to worry about the performance impact of adding fields or changing the user interaction."

Finally, the database-as-a-service solution helps minimize administrative workload for RadPad. "The solution has needed practically zero maintenance so far," concludes Eppers. "With IBM Cloudant, we can focus on making RadPad's user experience even faster and smoother, rather than spending time on database management."

For more information

To learn more about IBM Cloudant solutions, contact your IBM representative or IBM Business Partner, or visit us at: **www.ibm.com**/software/data/cloudant

For more information about RadPad, visit: www.onradpad.com

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