

# CFRA Research reduces data and software costs 90% with migration to Amazon Aurora

## Case study

### Executive Summary

CFRA Research partnered with Risk Focus, a professional services consulting firm, after inheriting three expensive Oracle databases and a datacenter through a business acquisition. Risk Focus re-engineered their entire system on AWS—migrating their databases to Amazon Aurora and implementing a true DevOps approach to application development. As a result, the company has improved its resilience, agility, and security, while reducing its data and software costs 90%.

### The Challenge

CFRA knew they wanted to re-engineer their systems to consolidate infrastructure and improve processes, but they needed a catalyst. They reached the tipping point when it came time to integrate new data sources into their research and estimated the costs required to doing that in addition to their existing infrastructure.

The current system architecture used AWS as a replacement for a traditional data center, which meant they weren't taking advantage of the tools, security features, or scaling abilities that come with the cloud services. In addition, the architecture didn't offer APIs that clients could integrate into their own third-party dashboards and applications. Lastly, the development process made getting new products to production, expensive, tedious, and slow.

Like most revenue-generating systems, CFRA could not shut down their system or jeopardize their current customers' experiences to make changes.

### The Solution

Risk Focus worked with CFRA to help them rationalize their entire architecture and software stack, leveraging AWS native service including AWS Glue for the ETL service, AWS Lambda for most processing tasks, and AWS API Gateway and Cognito for both the internal and client-facing APIs. Combining that with the migration of Oracle workloads to Amazon Aurora, they were able to reduce their data and software costs over 90% on average.

**"** Risk Focus worked as a true partner to our organization and helped us to build out our teams, processes and IT infrastructure. By migrating on-premises workloads to Amazon Aurora, Risk Focus helped us consolidate our footprint dramatically, improve our scaling, and lower our costs. We're far more efficient with AWS. **"**

— Eram Schlegel, CTO for CFRA Research



### About CFRA

CFRA Research is one of the best-known Financial Research companies, providing independent and actionable research and analytics to improve its clients' investment and business decisions. They offer global coverage of individual stocks, ETFs, and Mutual Funds to retail and institutional clients. They create research and analytics tools used by assets managers for forensics, wealth management, and other financial instructions. In 2016, CFRA acquired S&P Global's Equity and Fund Research business including its core technology product delivery systems.



### About Risk Focus

Risk Focus is a professional services consulting firm headquartered in New York City. They combine Capital Markets business domain knowledge, technical expertise, and process acumen to ensure the success of the hardest projects in the industry. As an AWS Advanced partner, they focus on DevOps and Automation; Data and Application Migration, Security Assessment and Implementation; and Remediation and Improvement.

## Results and Benefits

By partnering with Risk Focus and moving their Oracle workloads to Amazon Aurora, CFRA was able to go live within a very compressed timeframe with a new architecture and software stack.

### **Save the opportunity cost of running on-premises infrastructure**

According to Eram, “anything that’s managed for us gives us immediate cost savings on several levels including the opportunity cost of serving customers. If we’re spending time doing maintenance instead of innovating that’s going to cost us in the long run. And from the perspective of performing infrastructure or database updates, any time that we’re down when customers need us costs us money.”

### **Gain functionality through built-in features and the AWS ecosystem**

Moving to AWS opened CFRA to the entire AWS ecosystem of services and features including AWS Glue, Lambda, and Beanstalk, which Risk Focus leveraged to increase the scalability of the firm’s services and add enhanced functionality. For example, moving to Amazon Aurora provided built-in redundancy that’s crucial to CFRA’s business.

“We need enough redundancy to make sure things don’t go bad, but that can be a very expensive proposition because it requires people managing infrastructure,” said Eram. “With the fully managed services of Amazon Aurora, redundancy was just a matter of turning it on. Now our people can focus on creating revenue-generating products instead of keeping on the lights.”

### **Reconfigure the software delivery process for increased agility**

The new architecture, designed and implemented by Risk Focus, also included new tooling and processes that support a fast, automated, predictable Software Delivery Lifecycle. Production release times have accelerated from quarterly to daily. “Amazon Aurora can be serverless which means we’re not paying for it when developers are not using it,” explained Eram. “These systems typically cost tens of thousands of dollars a month which becomes untenable with multiple developers. Now we have true, on-demand environments that are identical to our production environments whenever we need them—without breaking the bank. It allows us to run multiple parallel production processes.”

## Learn more

[Amazon Aurora](#) is a MySQL and PostgreSQL-compatible relational database built for the cloud, that combines the performance and availability of traditional enterprise databases with the simplicity and cost-effectiveness of open source databases. Amazon Aurora is up to five times faster than standard MySQL databases and three times faster than standard PostgreSQL databases. It provides the security, availability, and reliability of commercial databases at 1/10th the cost.