



Capital One Drives Continuous Delivery Improvement with Insights from DORA

Executive Summary

The automation and DevOps team at **Capital One** are known for their strong technical practices. The team was looking for ways to make changes to their systems more frequently without compromising on stability, but weren't sure where to start. As a high performer and innovator in

the DevOps space, significant improvements are difficult to achieve because the easy hurdles have already been crossed. The DORA assessment identified precisely where to focus their efforts, leading to over 20x increase in release frequency with no increase in incidents.

20x

Increase in Number of Releases

30+

Number of Times Some Applications Deploy to Production in a Day

0

No Increase in Incidents

TOPICS	Continuous Delivery	Technology Transformation	DevOps	Assessment
Trunk-Based Development	Change Approval Process	Enterprise	Financial Industry	IT Performance

About Capital One

Capital One is a Fortune 500 company and diversified bank that offers an array of services to consumers, small businesses, and commercial clients. Capital One is one of the ten largest banks

in the US, and is known for its innovative approach to customized services and offerings. Capital One is headquartered in McLean, Virginia, and serves customers in the US, Canada, and the UK.

Limited Measurement Tools Made it Difficult to Keep Improving

Adam Auerbach, *Senior Director*, Leading Continuous Delivery and DevOps Transformation at Capital One, was proud of the progress his technical teams had been making. In search of the next improvement opportunity, he wanted to find a way to turbocharge the delivery of new features to their core banking systems.

He and his colleagues were frustrated with the limitations of the various measurement and assessment tools they had been using: the tools were either too narrow, too complicated, didn't offer actionable insights, or didn't show them how they compared against the industry. Crucially, these other tools didn't identify which

capabilities were the most important for them to focus on first. "It was clear on where we wanted to go but it was hard for us to get clarity on exactly where teams should start when they each had different aspects of CD already implemented" said Auerbach.

The team believed in the use of measurement to guide insights and drive action, but didn't have the right tool to implement this in a way that would take into account their unique strengths and capabilities. When the opportunity to assess Capital One's DevOps capabilities holistically and in comparison to the industry presented itself, Auerbach took it.

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The Solution: DORA Assessment

Capital One needed an assessment tool that would help them measure holistically, benchmark against the industry, and identify the most important areas for them to focus on. The team considered engaging with external consultants to augment their internal tools, but only DORA could address all three requirements.

“Teams really wanted a backlog of what they should do and DORA provided that backlog by giving teams customized insights which prioritized where teams should focus based on years of industry data” said Auerbach, “it focused our efforts on the right work which resulted in accelerated maturity”.

DORA gave Capital One customized insights which prioritized where teams should focus.

Results, Return on Investment, and Future Plans

Following assessment across over a dozen teams and several business units, DORA’s analysis showed that Capital One had an opportunity to improve its IT performance by focusing on two key capabilities: trunk-based development and automating its change control processes. While the team was aware that their change approval processes were a likely candidate for improvement, the analysis provided an evidence-based second opinion, providing the necessary leverage to prioritize it. Trunk-based development proved to be a bigger challenge: some were skeptical that this would be a key driver for IT performance improvement. But the data and the analysis were clear; these capabilities were key.

Capital One created organization-wide working groups and workshops on branching strategies and worked to reduce the amount of manual

approvals happening in their change approval processes. The results were staggering. In just two months, the team was able to increase the number of releases to production by 20x. The team now has many of its cloud based applications deploying to production multiple times multiple times a day, every day. And all of this improvement happened with no increase in incidents.

“When we first worked with DORA and discussed the trunk-based development approach, we were skeptical that it would work with large complex financial platforms. What we found out was that our most advanced teams had already implemented it and for those who didn’t it was because they had other opportunities like better unit testing or lack of test automation, which were causing teams to

create long running feature and release branches. The work with DORA gave us this and other insights that now teams are better informed, which is resulting in a quicker path to Continuous Delivery” said Auerbach.

The teams and their leadership also commented on the value of participating in the assessment,

since the survey itself highlights and reinforces behaviors and best practices across all dimensions important in software development and delivery: technical, process, and cultural. So the DORA assessment becomes both a measurement and a learning opportunity, creating a shared understanding of how to drive improvement across the organization..

About DevOps Research and Assessment

DevOps Research and Assessment was founded by Jez Humble, Gene Kim, and Dr. Nicole Forsgren. Our mission is to help technology organizations improve the productivity of software development and delivery through scientific research.

DORA’s research over three years and more than 20,000 data points serves as the basis for a set of evidence-based tools for evaluating and benchmarking technology organizations.

Are you evaluating your own technology transformation? We offer assessments directly to organizations. Request a demo at:
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