

Harnessing Technology to Drive Justice:

How Orange County Superior Courts Leveraged Data to Transform Operations

Courts across the country are inundated with data, and many of them face significant case backlogs. Technology modernization is critical for them to make better use of data and process cases more efficiently, better enabling them to carry out their constitutional and judicial responsibilities.

Like many of its peers, the Orange County Superior Court in California faced a range of data management and operational challenges. OC Superior Court, the fifth-largest trial court system in the U.S, includes five courts, 144 authorized judicial positions and 1,477 full-time employees.

To meet its diverse operational requirements and advance its data maturity, the court needed a foundational platform that was scalable and portable. With the help of a data analytics innovation grant, OC Superior Court collaborated with Microsoft and other technology partners to maximize its use of data, modernize and automate its processes, and ensure it could effectively administer equal justice under the law.

Tackling the Court's Operational and Data Management Challenges

OC Superior Court faced several entrenched challenges in the past, according to both David Yamasaki, the court executive officer, and Darren Dang, the court's chief financial and administrative officer. Those issues included difficulty hiring staffers with

the right data skills, a lack of standardized business and data management practices across the court system, and a fragmented technology ecosystem in which data and documents were spread across three on-premises case management systems.

Inefficiency was another challenge. Dang's team would produce compelling and insightful reports about the court's operations, but the process was manually intensive and involved multiple people pulling data from different systems and consolidating that information into an Excel spreadsheet.

"In California, every local court is its own separate entity," Yamasaki says. "We have separate CEOs and different appointing authorities. But from a legislative funding standpoint, we're considered a monolithic third branch of government. We're seen as a single entity, yet we all operate differently."

That dichotomy impacts the way courts pursue new innovations, he says. "We needed a solution that worked for us locally, but also spoke to the branch as a whole."

"From a process standpoint, we have a lot of clerks," adds Dang. "Getting consistency in business practices and having a common data definition was also very challenging. Then there were multiple technology issues. It was just overwhelming even knowing where to start."

Fortunately, OC Superior Court was given a helpful nudge to advance its use of data. In 2017, the court system received a data

analytics innovation grant from the state to build a cloud-based data warehouse. The early success of the project also inspired a branch-wide workstream and data governance framework. In 2019, the Judicial Council of California launched technical platform pilots in five of its other courts.

OC Superior Court's five-year data roadmap has taken it on a path from a basic data warehouse designed to unify and consolidate its operational data all the way through to harnessing data exchanges, predictive analytics and AI-driven insights to improve its operations.

The court has evolved into a data-driven organization that has already become a national model.

Data Transformation in the Justice System

OC Superior Court decided to work with Microsoft for several reasons.

First, it already used many of Microsoft's solutions for its day-to-day operations. Another draw, says court CIO Brett Howard, was Microsoft's collaborative approach to working with customers.

"I've been a fan because of their continued partnership with the court. They also shared our values in the importance of justice," Howard says. "We've been focused on moving everything to the cloud, and Microsoft's customer success model has been really key in our migration success. Microsoft's approach

wasn't just about selling licenses and products. It was about engaging with us, understanding what our problems were, where we were trying to go and then providing diverse resources to help get us there."

OC Superior Court has implemented a range of Microsoft's data-driven solutions, including:

- **Azure SQL Server** for more effective data management and secure data transfer between applications.
- **Azure Databricks** to expand the court's predictive analytics capabilities.
- **Microsoft Power BI** for data visualizations and powerful dashboards that make business intelligence more accessible.
- **Microsoft Forms Recognizer** for AI-driven, automated data processing that makes it easier to extract and structure metadata in documents.
- **PowerApps** to enable real-time, data-driven decision-making.
- **SharePoint Online** for more streamlined document management and team collaboration.

OC Superior Court's initial implementation took place over a three-year period from 2017 to 2020 to pull data from its three case management systems and build a new data warehouse. With its branch-wide workstream and data governance framework in hand, the court began working with the Microsoft team and the company's technology and consulting partners to implement data-driven business solutions that transformed the way the court conducted business.

Innovating How the Court Does Business

The court's data and technology improvements have transformed operations in several ways. Predictive analytics, for

example, help the court manage its caseload by anticipating filings, the number of trials and hearings on its docket, and the number of jurors to summon. Form Recognizer allows the court to extract metadata from filing documents, classify them and redact certain information.

Maximizing the use of its data has helped OC Superior Court ensure equity and fairness in its funding distribution. Previously, courts would receive funding allocations from the legislature and the California Judicial Council, the courts system's governing body, largely based on prior-year allocations. However, courts in certain areas throughout the state have experienced exponential growth, which has led to bigger caseloads. Now, funding resources are deployed where demand and need is the highest based on each court's backlog of filings rather than distributing backlog funds branch-wide.

The court also uses Power BI in several ways to better leverage its data. Dang's team no longer has to manually pull and compile reports. They instead can use dashboards to make information more accessible. At the same time, Power BI's data analysis and visualization capabilities enable OC Superior Court to more effectively track vacancy rates and perform forecasts to better manage staffing and balance its budget. Power BI also helps the organization improve succession planning, Dang says. For example, with impending retirements, the organization may lose many members of its executive leadership team within the next five years. Thanks to that increased data visibility, Dang says, the court has developed a leadership pipeline program called "Level Up."

Its three-year data transformation also helped OC Superior Court strengthen its resilience during the pandemic. The court was able to track COVID cases within its organization more transparently and share that information with employees. This allowed it to make better staffing,

employee safety and reopening decisions to ensure the court's work kept going with minimal disruptions.

"We were probably holding the greatest number of jury trials in the nation because the data helped us recognize how to keep everybody safe," says Yamasaki.

The court's data journey has had a statewide impact. It eventually became an incubator for a larger statewide courts data initiative. The incubator then evolved into a state-funded pilot program involving five courts. Advancing its data maturity has also allowed OC Superior Court to collaborate more effectively with other judicial agencies. CourtsStack is one such example. With CourtStack, OC Superior Court is collaborating with three other courts and the California Judicial Council to develop an architecture to more easily abstract data from all the applications these courts use.

As far as it has already come, OC Superior Court plans to continue progressing its data capabilities. Yamasaki, Dang and Howard all say the organization is on an ongoing quest for data fluency and transforming data into a second language. The court plans to continue sharing its learnings and best practices with other courts throughout California and across the country.

Other court systems that want to follow in the OC Superior Court's footsteps should be encouraged by the technology implementation process, says Howard. With proper planning, a collaborative partner and a comprehensive strategic roadmap, they too can evolve into data-driven organizations.

"It's important to start small, iterate through it and then go big," Howard says. "That's been a really successful formula for us."

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