



INTERIM REPORT TECHNOLOGY COMMITTEE

JULY 2016



WWW.NCCALJ.ORG

PREFACE

These interim reports outline the work-to-date of the North Carolina Commission on the Administration of Law and Justice (NCCALJ). Chief Justice Mark Martin convened the independent, multidisciplinary commission in September of 2015, and charged the members to evaluate the North Carolina judicial system and provide findings and recommendations for strengthening our courts within the existing administrative framework.

Sixty-five voting members and additional non-voting guests were asked to serve, drawn statewide from business, academia, the bar, the non-profit sector, the Legislature, and the Judicial Branch, to ensure a well-rounded evaluation of the judicial system. Each of the members serves on one of five NCCALJ committees studying the areas of civil justice, criminal investigation and adjudication, legal professionalism, public trust and confidence, and technology. Over the past 10 months, these committees have held forty meetings where members heard presentations from more than ninety different national and statewide experts, practitioners, and court officials, resulting in productive and focused dialogue.

The NCCALJ Wants to Hear From You

The NCCALJ recognizes the vital importance of public participation in the process of court system improvement. The interim reports that follow are intended to inform the public of the relevant issues the committees are addressing and to invite input and feedback. Submit comments online at www.nccalj.org/interim-reports or sign up to speak in person at one of the four public hearings scheduled for August 2016. The dates, locations, and sign-up forms for those meetings are also at the commission's website.

In the fall of 2016, the NCCALJ's five committees will incorporate the public feedback into final recommendations to be presented to the Chief Justice, the Legislature, and the public in early 2017.

The NCCALJ thanks you for your feedback on how North Carolina courts can best meet institutional needs and 21st century public expectations. We look forward to hearing from you.

I. INTRODUCTION

Innovative uses of technology can revolutionize the ways organizations and people conduct business and live their lives. Recent examples of this include Amazon’s transformation of retail shopping as well as the development of smartphones and mobile apps that support banking and payment transactions. Likewise, innovative technology has been utilized both in state courts and federal courts to dramatically improve the administration of justice. North Carolina’s Judicial Branch will benefit from employing additional technology to achieve its constitutionally mandated mission. Importantly, implementing technological change brings with it the promise of a truly uniform statewide court system as first envisioned by the Bell Commission almost 60 years ago. That uniformity will empower local and statewide judicial officials to better manage court performance through improved data-driven decision-making, thus promoting greater stewardship of judicial resources. It will also remove many of the local barriers to court access for self-represented litigants and will increase the service capacity of low-income legal service providers. Additionally, through a uniform Judicial Branch online presence, the courts can meet and exceed expectations for public access to courts. In the 21st century, the public expects delivery of public services — including those provided at the courthouse — via modern technology. The numbers tell the story: 85% of people under the age of 40 and 76% of people under the age of 65 are willing to conduct their court business online.

The North Carolina Commission on the Administration of Law and Justice (NCCALJ) is an independent, multidisciplinary advisory body convened by the Chief Justice of the Supreme Court of North Carolina to recommend improvements to the judicial system. The Technology Committee is one of five committees of this Commission. The Technology Committee is focused on identifying significant ways technology can support the Judicial Branch’s mission of providing a fair, independent, and accessible forum for the just, timely, and economical resolution of the legal affairs of the public.

The Judicial Branch’s 6,500 employees work hard each day to carry out the Branch’s mission. The Technology Committee’s goal is to recommend ways that technology can enhance our court officials’ and staff’s efficiency, effectiveness, and timeliness of court processes, and also meet the public’s expectations for accessibility and transparency. The committee’s challenge is to reimagine the courtroom and clerk’s office of the future and to produce a strategic plan to deliver on that vision.

This interim report is intended to provide background on technology in the Judicial Branch, describe the work and goals of the Technology Committee, and invite input from the public. The committee looks forward to hearing from you.

Judicial Branch Technology Overview

The Technology Services Division (TSD) of the North Carolina Administrative Office of the Courts provides network infrastructure, hardware, software applications, technical support, and services to over 500 courtrooms and offices spread throughout all 100 North Carolina counties. Included in the Judicial Branch are more than 500 independently elected, judges, district attorneys, and clerks of court. With the ninth largest population in the United States, the courts of our state handle roughly 2.7 million cases each year.

The approximately 200 permanent employees of TSD support over 200 Judicial Branch software applications. They also serve over two dozen government agencies, vendors, and private entities that interface with the court system's technology and data. This makes for an extensive, statewide, inter-agency technology operation.

Background on the Technology Committee's Work

The committee held six public meetings and heard presentations from states that are already utilizing innovative technology to address the needs of their citizens, from national court technology experts, from current North Carolina judicial officials, and from other members of the public. In early 2016, the consulting group BerryDunn was retained to assist the committee on the legislatively-mandated need to create a strategic plan for e-courts. The goal of an e-court system is to increase the efficiency and effectiveness of court processes by converting the courts' current paper-driven work flow to an electronic one, including public-interfacing work flow processes like filing and payment. An e-court system will provide the foundation for further technology innovation throughout the court system.

To understand the current state of the Judicial Branch's technology, BerryDunn conducted an online survey of court employees and members of the public, collecting responses from over 1,000 individuals. Additionally, BerryDunn organized in-person interviews over 12 days of focus groups at six sites with more than 200 Judicial Branch employees and members of the bar from across the state. Having heard from end users, BerryDunn then reviewed the Judicial Branch's infrastructure and capabilities and fielded reports from the other committees of the Commission about the role technology should play in their areas of reform.

II. ISSUES IMPACTING TECHNOLOGY

The committee and BerryDunn have identified four overarching elements that are relevant when considering the transition to greater technological functionality in the court system.

Technology Management and Governance

Technology management and governance address how core technology initiatives are identified, analyzed, prioritized, and budgeted. Without a governance process in place, important technology needs may be overlooked, less-important technology projects prioritized, limited technology resources diluted, and project completions delayed because of short-term changes in technology agendas. Equally important, a healthy governance process ensures that software applications are developed with user input to ensure effective implementation. The committee observes that best practices within the technology industry include a governance process that involves users and fact-based decision-making, maintains the installed technology base, and increases simplicity.

The Judicial Branch's technology governance process historically was unstructured, irregular, and not externally transparent. Initiatives began from internal ideas, field demands, executive branch or local government requests, and legislative mandates. A lack of formal technology governance in the past has hindered the effectiveness of technology innovation and execution by being vulnerable to constant course changes, thus making accurate and consistent budgeting and time management of

technology projects difficult. A plan for structured governance was developed by court stakeholders in 2014, and reported to the committee at an early meeting in 2015. The committee has preliminarily recommended that such a governance process be formalized.

The Business Environment: Lacking Uniformity and Paper-Based

Because the purpose of technology is to solve business problems and improve business processes, any use of technology must be considered within the context of the business environment. North Carolina's court system is unified, but there remains a clear lack of uniformity with respect to the business processes that individual courts and courthouses use. Courts are managed based on local jurisdictional needs, and with 100 counties and more than 500 independently elected officials, this results in business processes that vary dramatically from courthouse to courthouse. Implementing technology improvements that accommodate a multitude of variations in local business processes is too costly, both in terms of limited time and financial resources, as well as impossible given the limited resources available. For technology initiatives to be effective, they must be accompanied by increased business process uniformity.

Another barrier to efficiency in the current North Carolina court business environment is that processes are highly paper-driven. Over 30 million individual pages of paper are added to state court case files each year. Official legal records are almost entirely in paper form. System actors describe several challenges resulting from a largely paper-based case file system. Among those challenges are that official decisions and notes are annotated on paper files during court and later transposed into one of the many supported software applications to create an electronic index of the same actions, leading to constant duplication of effort. Maintaining organization of and ongoing access to court files is labor-intensive because of the constraints of the paper environment. Additionally, individuals report instances where the only record of a case disposition is written on the outside of the court file prior to filing it in a box or filing cabinet, never to be entered into an electronic system for easy future reference. The continued reliance on a paper-based system creates data entry redundancies and limits payment processes related to cases. Simultaneous access to case files by multiple parties (e.g., judges and clerks) as well as access across county or jurisdictional lines is difficult or impossible.

The physical impact of maintaining a paper-based system also merits review. Each year, over four miles of shelving is needed to maintain the new case files generated during that year. Counties are utilizing attics, basements, and off-site arrangements for storage. Old files must either be promptly archived into microfilm or digital formats to create shelf space, or new space must be obtained. While the staffs of clerks' offices have electronic indexing systems for some case information and management tasks, paper files still serve as the primary tool for court personnel to manage cases. Cases must be physically carted and carried throughout courthouses.

The highly paper-driven business environment is ripe with opportunity for technological innovation, but the lack of uniformity across local business processes is an obstacle that needs to be thoughtfully addressed.

Technology Development: Software Applications

Software applications will require an initial infusion of judicial resources to be developed and implemented as well as continuous resources in order to be maintained. Software applications can be developed in-house by TSD staff and contractors, can be purchased off the shelf from third-party

vendors, or can be a combination that heavily customizes a commercial application. For example, the state's workhorse Criminal Case Information System was developed in-house and is tied closely to North Carolina law and procedure. Microsoft Office products like Word, Excel and Outlook are off-the-shelf. And the clerks' Financial Management System is a heavily customized vendor general ledger accounting product. The vast majority of the Judicial Branch's 200 applications have been developed in-house because they filled niche needs. This approach has provided for a greater level of technology customization interfacing with external government agencies and their various technology platforms and has allowed projects to be slowed or accelerated as agendas and funding changed. The in-house approach, however, has also resulted in a proliferation of aging applications that are increasingly difficult to maintain as underlying technologies become obsolete and that require maintenance by developers who are aging out of the workforce.

Anytime, Anywhere Access to Services

The 21st century public expects to manage their lives, their finances, their health, and a host of other things remotely from their smartphones and other electronic devices. When considering the business environment as it relates to public use of technology, the predominance of the need for online information and supporting mobile technology cannot be overstated. Calendars, maps and instructions for parties, witnesses, and jurors must be easy to access. Software applications should facilitate communications with key offices, electronic payment options, and e-filing of documents. Software applications with a public-interfacing component must be accessible across multiple types of devices like desktops, tablets, and phones. Compatibility with smartphones is particularly important because their widespread use throughout populations of varying income levels will help reduce barriers to court access. The importance of equal access to justice has been a focal point in each of the NCCALJ's four other committees.

III. AREAS OF FOCUS

The committee is encouraged by the fact that BerryDunn's initial field work has shown nearly universal Judicial Branch employee and outside user support for innovative technological improvements that increase the effectiveness, efficiency, and timeliness of court processes.

The committee, in consultation with BerryDunn, has initially identified the following business processes that can be reengineered through technology innovation.

Document Management System

The current process of relying on physical access to court documents could be dramatically improved through the development of an electronic document management system. An electronic system should support a transition from paper-based to digital files over time, while increasing electronic access to those files from anywhere at any time by both court employees and the public.

No single repository of case data

Selected data from paper files is manually keyed by authorized personnel into one or more of the Judicial Branch databases, to be accessed through various software applications. Lack of a single

repository for case data significantly decreases efficiency, requires redundant data entry, and requires users to log into multiple systems, often toggling between them, to complete a business process. A single, integrated case management system would save valuable employee hours as well as reduce data entry errors.

Calendaring

The process to create, update, and distribute calendar information is time consuming, often requiring redundant data entry, and resulting in some courts instituting their own “workarounds” (e.g., Google calendars). An electronic calendaring system that is automatically populated through a case management system would be easily accessible by both court employees and the public.

Public Demands for Service

Many clerks interviewed during BerryDunn’s focus groups reported that a majority of their time is spent servicing public requests for information — information that is a public record but is not readily available to the public without calling or visiting a clerk’s office. This service is important, but is also interruption-driven, causing clerks to spend time “reorienting” themselves to the task that they were working on prior to the inquiry. A statewide effort to make basic, relevant courthouse information available online will improve clerk’s office productivity, customer service, and transparency. In addition to making information available online, the clerk’s office should be able to provide the public with the option to conduct numerous other routine transactions online.

From a customer service standpoint, maintaining information available online saves individuals from having to take time off of work to drive to the courthouse. Making forms available online, creating portals for the submission of documents to the courthouse electronically, and providing for online payment of court costs and fees are just three examples of the level of online access the 21st century public has come to expect from its institutions. As the NCCALJ’s Public Trust and Confidence Committee notes, increased access to the courts and to information about the courts has the potential to foster greater confidence in our courts.

Financials

Staff using the current Financial Management System (FMS) report significant redundancies and inefficiencies with the system. Specifically, the system does not integrate well with the case management system(s), requiring paper printouts of financial obligations, and access to multiple systems (FMS and a case management system) to cross-reference the obligations. The committee sees substantial benefits from having the financial management system being rolled into a single integrated case management system.

Centralized Electronic Filing, Document Management, Case Management, and Financial Management Systems

Electronic filing is nominally an option with North Carolina’s appellate courts, the Business Courts, and four pilot sites for civil cases. In addition, more than 1 million criminal and non-criminal citations, primarily traffic-related, enter the courthouse electronically each year. In most instances, however, this information is then printed and a physical file is created. This manual process contributes to the estimated 30 million pieces of paper that are added to state court case files annually. A truly innovative electronic filing system must allow for electronic document storage and

case management so that documents filed electronically are able to move electronically throughout the system.

North Carolina's unified court system would be strengthened by the implementation of mandatory statewide electronic filing. In the near term, high-volume and forms-driven case types may present the greatest opportunity for significant and immediate savings. While some filings may still require paper to be converted to an electronic format for storage at a later date, the document should be retrievable through an integrated case management system. A case should be maintained by an electronic workflow that allows varied dashboard views for court officials and parties, depending upon their role within the court system. Functionality should give individuals the ability to manipulate documents and information at the case level. The Civil Justice Committee has observed that uniform, technology-enhanced filing has the potential to make representation of indigent clients less burdensome for both the lawyers and the litigants themselves.

The use of electronic filing and electronic information management systems will require a thorough review and revision of filing and recordkeeping rules prior to implementation. This will ensure that all parties, including self-represented litigants, have equal access and understanding. It will also ensure that the rules address changes necessitated by electronic filing. Training both internal and external Judicial Branch stakeholders will be essential and may be accomplished by a combination of in-person training and web-based instructional videos that will need to be created.

Data Analytics and Reporting

The Judicial Branch's data system initially was developed to collect and compile statistics about the number of cases in the system. A master index of criminal convictions was later added. Systems were not conceived with a purpose to support the daily management of high volume workflows. In order for local officials and Judicial Branch leadership to measure court performance effectively, replicate successes, and identify weaknesses, the court system must be able to collect, manage, and provide data in a useful format. That ability does not currently exist. In addition, policy makers and the public will benefit from more insight into what the aggregate data can show about the evolution of the court system through a variety of different metrics, such as changes to statutes, changes in case filing patterns, and how long it takes to resolve a particular type of case.

Case counting remains the underlying purpose for many of the Judicial Branch's case tracking systems, and, although it provides valuable information about the status of a case, it affords little information about the case's progression through the system. This hampers effective data-informed management decisions because system actors are unable to determine points in the case management process that require improvement. Furthermore, many data fields in the current case tracking systems lack standard written definitions, and the lack of uniformity in data entry creates barriers to meaningful analysis of the data that has been collected. Finally, as previously noted, much of the information pertaining to a case that would be valuable for the purpose of analysis is maintained only in hard copy files. As a result, it is difficult, if not impossible as a practical matter, to access simple data.

These burdens on data availability prevent effective management of both the overall court system and the local needs of judicial system stakeholders across the state. Ineffective management can result in delays, inconsistent outcomes for parties, and legislative concern over stewardship of resources. Several of the NCCALJ's companion committees have stressed the importance of improving the timeliness and efficiencies of our courts. Public polling data from the Public Trust and Confidence Committee shows that the public is highly concerned about delays in the

administration of justice. Good management of the courts supported by good data will positively impact every aspect of the Judicial Branch.

Currently, when data is in a format that allows for reporting, Judicial Branch employees indicate that the reports provided are both useful and informative. They further note that current reporting must be accomplished by requesting new reports to be developed by TSD and the Research and Planning Office. There is minimal access to self-service reporting in the courts, requiring days of staff time to produce and execute a report. Innovative technology solutions should offer real-time performance dashboards, providing both baseline data measurements and additional analytical modification for use by local officials and the public alike. The NCCALJ's Public Trust and Confidence Committee has also emphasized greater access to information, because the court system's inability to respond to its perceived shortcomings negatively impacts public trust.

The demand for data in a usable format will continue to grow. It is important for data to be available, complete, accurate, timely, and consistent throughout the court system. Similarly, utilization of standardized definitions is essential as the Judicial Branch implements court performance measures, such as the National Center for State Court's *CourTools*. As the emphasis on data moves to predictive analytics, such as assessing at case initiation whether a civil case will be simple, general, or complex in order to determine likely resourcing needs, the integrity of the data and the use of standardized definitions become increasingly important.

IV. CONCLUSION

The Technology Committee has gathered a tremendous amount of information during the last ten months. The committee is eager to hear further from members of the public as it prepares to finalize its recommendations in the fall and complete its strategic technology plan. The committee envisions a court system that will fulfill the vision of a 21st century courthouse — where technology is used to enhance efficiency, effectiveness, and timeliness of process, and where the public has greater access to and confidence in the courts. The committee welcomes the insights of the public on the ideas presented in this report as well as areas where additional research or investigation should be directed.