

The Technological Transformation of Kerala High Court

October 2023



www.dakshindia.org

First published in 2023

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The authors would like to thank the judges and staff of the High Court of Kerala for permitting us to do this study and facilitating it at every step. We would like to thank Justice Manikumar for permitting us to carry out this study and Justice Mohammad Mustaque, Justice Nias Mohammad and Justice Raja Vijayaraghavan for their inputs. We are grateful to Ms. Saleena VG Nair, Mr. Gopakumar G, Mr. Joseph Rajesh of the IT Directorate and Mr. Ishaque MV and the IT team. We also thank all the advocates interviewed for sharing their experiences. The assistance of the Court Managers Vidya Gopan and Jini Panicker was invaluable to us. The insights of the Kerala High Court Advocates Association and the Kerala Advocate Clerks Association were very helpful. We are grateful to Surya Prakash BS and Harish Narasappa of DAKSH for their valuable suggestions and support.

About DAKSH: DAKSH is a Bengaluru-based civil society organisation working on judicial reforms and access to justice. We are focused on solving the problem of pendency of cases in the Indian legal system. We approach the problem from the perspectives of data, efficiency, process, technology and administration.

Table of Contents

Executive Summary	4
Introduction	6
Chapter 1: Decentralised Policy Experimentation - CMS and the ‘Bail Module’	9
<i>COVID Crisis - A Trigger for Change</i>	9
<i>Initial Planning</i>	10
<i>Implementation of the “bail module”</i>	11
Chapter 2: E-Filing - A Necessary Step in Foundational Reform	15
<i>The process of e-filing</i>	15
<i>The impact of e-filing on caseload</i>	16
<i>The Advocates’ Dashboard - a tool to incentivise e-Filing</i>	18
Chapter 3: Online File Scrutiny - the Iterative Approach	19
<i>The first phase of online file scrutiny</i>	19
<i>The move to “automatic” scrutiny of bail applications</i>	22
Chapter 4: “Paperless” Courts - A Misnomer for a Prototype Digital Court	24
Chapter 5: Strategies And Design Principles	29
<i>Extensive mapping and re-examination of existing processes</i>	29
<i>Phased implementation combined with quick adoption of user feedback</i>	30
<i>Active and constant support from the IT Team to users</i>	31
<i>Incentivising adoption of technology</i>	32
Chapter 6: Factors Contributing to Success	34
Chapter 7: Challenges And Limitations	37
Insights and Looking Ahead	41
Annexure I - A mapping of offline and online case processes	43
Annexure II - Mapping Reforms to select points in the Vision Document	45
Annexure III - Additional features of CMS over CIS	52
End notes	53

Executive Summary

The Kerala High Court took a distinctive step towards the vision of the eCourts project by developing its own Case Management System (CMS) to replace the Case Information System (CIS) created by the National Informatics Centre.

The Kerala High Court's experience in digitisation highlights the complexities of developing technological solutions for courts within a federal structure. The diversity in practices and procedures across different high courts presents a unique challenge for developing a nationwide digital solution. The iterative and stakeholder-inclusive design and implementation process of the CMS is a model to create a system that can accommodate this diversity while unifying administrative and legal processes.

We believe it warrants careful study and consideration and that such a study can be of value not only to other courts but also to students of technology and the legal system.

Our study focuses on three main technology-enabled reforms - (1) e-Filing, (2) online scrutiny of pleadings and (3) paperless courts, all of which are enabled through the Case Management System or CMS. It is based on in-depth interviews with a variety of stakeholders. These included judges, members of the IT Directorate and IT Team, Registrars, court staff, advocates, and court clerks. Through these interviews, we were able to gain a deeper understanding of the challenges and opportunities of digitisation in the judicial system from multiple perspectives. Our goal is to present a well-rounded and nuanced case study that reflects the diverse experiences of those working within the justice system and to help untangle the inner workings of the registry that is crucial to understanding the scale and requirements of justice reforms.

- First, we study the 'bail module' where the High Court has introduced technology enabled reform

in the entire workflow of the case. Expansion of reform efforts here is from one case type to others.

- Second, we study e-filing the High Court has digitized the first stage of the life cycle of a case. Expansion of reform efforts here is from this stage to further stages.
- Third, we study the scrutiny processes where the High Court has attempted process re-engineering and automation. Expansion of reform efforts here is from this stage to further stages.
- Finally, we study “paperless” courts where the High Court has introduced technology enabled reform in the Listing, Hearing and File Processing stages. Expansion of reform efforts here is from this stage to preceding and further stages.

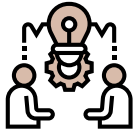
The primary factors contributing the adoption of technology enabled reform in our study were:



1 Extensive mapping and process re-engineering of existing processes

The IT Directorate mapped the flow of cases through the High Court system, including the role of each staff member and judge in the process, its purpose and the relationships between them. Once processes were mapped, the entire team could interrogate their role in the larger system, what value these processes added and whether ICT systems could simplify any of them. This helped them identify areas ripe for improvement through digital interventions.

On the basis of this, the technological changes implemented at the Kerala High Court have re-engineered certain processes rather than merely replacing paper-based processes with digital processes.



2

Consultative process of development with active support in deployment

Any radical transformation of processes and practices, especially technological will be met by resistance. The Computer Committee accounted for this by following an iterative and consultative approach to digitisation. The Computer Committee displayed a keen awareness of the potential drawbacks associated with unilaterally imposing changes without engaging in prior consultation. Since the introduction of the bail module, the Committee has taken proactive steps to train users of technological tools and solicit feedback from advocates and their own staff. This ongoing feedback loop has facilitated continuous refinement of the IT systems, enhancing their efficiency and user-friendliness.



3

People

The leadership at different levels of the High Court of Kerala supported the digitisation efforts. The Computer Committee provided leadership at the top, but it was also the IT Directorate and the Registrars who served as change agents and role models for this change. The composition of the Committee remained relatively stable. The members of the Committee not only had a far-reaching vision for the digitisation process, they also embraced technological changes themselves as a signal to others. The dynamism of the IT Directorate and the in-house also contributed to the success of the project. Having an in-house team allowed the Computer Committee to benefit immensely from their proximity to implement changes rapidly.

Despite this, there are several considerations for the High Court going forward.

- First, the High Court has to contend with the impact of these reforms on livelihoods. The profession that is most obviously affected by the digitisation of Kerala High Court is advocates' clerks. Their work has significantly diminished with the introduction of e-filing, e-payment, online scrutiny and automatic listing.
- Second, the High Court has some way to go in creating a technology-friendly environment in courtrooms. Video conferencing is still frowned upon in some courtrooms and ICT systems are not uniformly accepted by all judges. Some lawyers still complain that they are unable to keep up with e-filing and virtual files and will need consistent and long-term assistance.
- Third, the CMS is still at the stage of being an efficient and effective ERP system for the Kerala High Court but does not create digital public infrastructure/goods. It does not provide APIs or

provide bulk data to enable the creation of new tools and applications or enable citizen assessment of its functioning. Making such data available, with the necessary privacy guardrails in place, is the next frontier for the Kerala High Court.

- There are significant hurdles in extending the current reforms to all courtrooms and case types. Since the records of older pending cases (which were physically filed) have not been digitised these are in limbo between the old and new systems, even in paperless courts. The process re-engineering that was carried out for paperless courts cannot be replicated for older cases.
- Finally, end-to-end digitised work-flows for court processes in the future will require substantial amendments to High Court Rules, the Code of Civil Procedure 1908, the Code of Criminal Procedure Code 1973. These changes will have to ensure at least the same standard of procedural justice that offline processes offer and where possible, enhance them.

Introduction

The Kerala High Court (the “High Court”) has gained attention for making strides in the digitising court processes in recent years.¹ We, at DAKSH, proposed to understand the efforts of the Kerala High Court towards ICT-enabled transformative reform of court processes as a case study. We have focused exclusively on reform in the High Court and our study does not extend to district courts. We visited the High Court twice, from 27 March to 31 March 2023 and then from 24 June to 26 June 2023. We interviewed, in some instances, more than once,

1. Members of the Computer Committee - Mr. Justice A. Muhamed Mustaque (Chairman), Mr. Justice Raja Vijayaraghavan V and Mr. Justice Mohammed Nias C. P.
2. Members of the IT Directorate and IT Team - the Director and Deputy Director, Technical Project Manager, engineers and designers.
3. Ten members of the court registry and staff including section officers, scrutiny officers, staff from the listing section, court officers, eSewa kendra officers and assistants, registrars and assistant registrars.

4. 17 Advocates practising in the High Court, including state and central government pleaders and representatives of the Kerala High Court Advocates Association.
5. Five advocate clerks and one administrative assistant in the office of the Advocate General of Kerala.

Our study began with our initial visit to the High Court on a muggy day in March 2023. We were pleasantly surprised to find an online gate pass registration system for visitors on the website of the High Court.² Our spirits were somewhat dampened to see that it was not functional as we joined the waiting line to register ourselves at the entrance of the High Court. Things soon improved as the members of the IT Directorate and the Court Managers, Ms Vidya Gopan and Ms Jiny Panicker, welcomed us and helped plan the activities required within the High Court for our study. We found from the Court Managers that amongst other responsibilities, they assist the IT Directorate in the publication of the Computer Committee Newsletter - a public document highlighting the quarterly achievements of the Computer Committee.³

The eCourts Project was conceptualised under the National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary in 2005 with a vision to transform the Indian Judiciary by ICT enablement of Courts (“**eCourts Project**”). The e-Committee of the Supreme Court is overseeing its implementation. The eCourts Project is currently in the third phase of its implementation (“**Phase III**”), the goals and vision of which are described in the vision document “Digital Courts Vision and Roadmap eCourts Project Phase III” released by the eCommittee in 2022 (“**Vision Document**”).

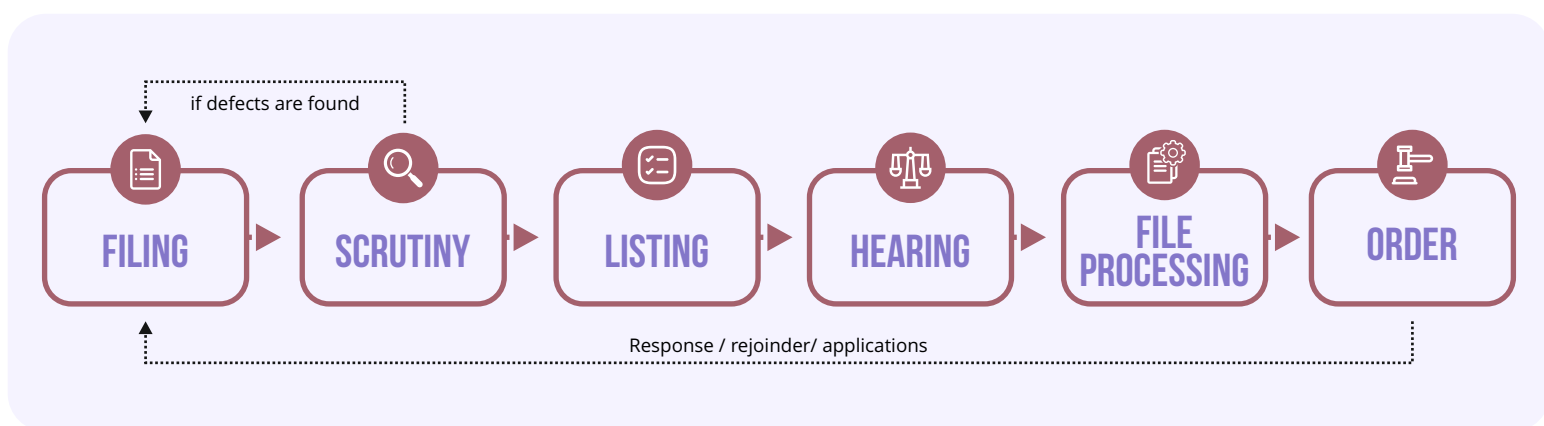
Each High Court has independent control over its own administrative processes and practices and is, therefore, responsible for implementation of the eCourts project in its jurisdiction. Under the Policy and Action Plan of Phase II of the eCourts Project, each High Court set up a committee in charge of computerisation to recommend various policy measures, administrative restructuring essential for ICT implementation in consultation with the (Supreme Court) E-Committee. In the High Court of Kerala, the Committee in Charge of Computerisation of the High Court of Kerala (“**the Computer Committee**”), consists of five judges of the High Court.

We proceeded to conduct interviews and view demonstrations of technological interventions focused on the functioning of three main technology-enabled reforms - **(1) e-Filing, (2) online scrutiny of pleadings and (3) paperless courts**. All of them are enabled through the Case Management System or CMS - the digital infrastructure and platform developed independently by the Kerala High Court to run and manage its court processes.

In this study, we attempt to contextualise the efforts of the High Court within the larger goals of the

national eCourts Project (for a mapping of the reform efforts studied to corresponding goals in the vision of the eCourts Project, see Annexure II). The mandate of the eCourts Project forms the basis of the efforts of the High Court.

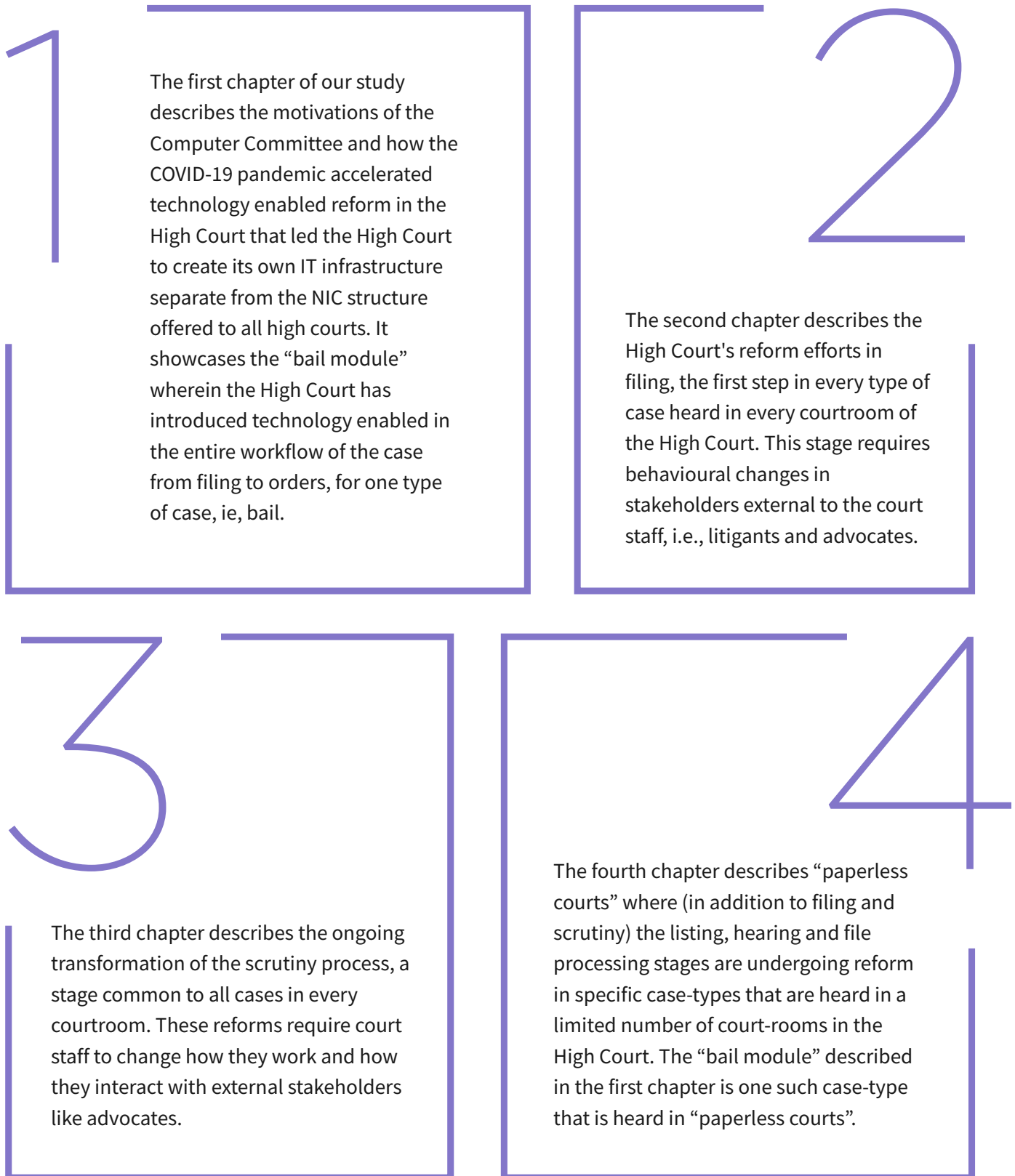
To situate the reforms studied in the environment of court processes, we simplify the typical life cycle of a case in the High Court into the following basic workflow:



This workflow is repeated till a final order is passed. For a more detailed work flow both online and offline in the High Court, see Annexure II

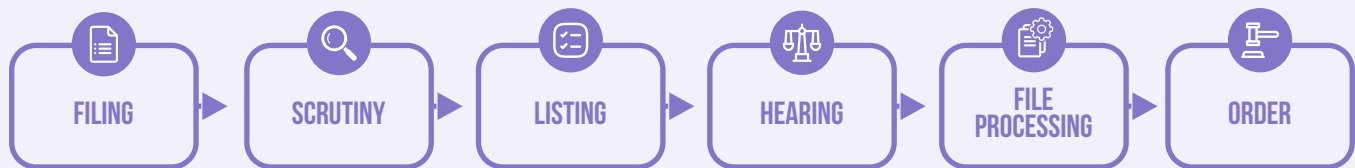
	Functionary	Description
FILING	Advocate + eSewa Kendra	The party through their advocate files their petition, application, response, rejoinder etc.
SCRUTINY	Registry (scrutiny section)	File Scrutiny Officers check the filed documents for basic defects and point out corrections if any. The advocate corrects the documents and files them again.
LISTING	Registry (posting section)	The registry assigns a number and assigns a date for a hearing by the judge(s).
HEARING	Judges + Judges' staff (such as court officer, personal secretary of the judge, stenographer)	The advocate presents arguments relating to the document filed. These are heard by the judge who may issue orders and directions which are noted by the judge's staff.
FILE PROCESSING	Judges' staff + Registry (section officers)	The hearing may result in actionable items such as issuing summons to various other parties or calling of records from lower courts etc. This is done by both the judges' staff and the registry, sometimes with the advocate's help. The case file is stored in the section office and handled by the registry there.
ORDER	Judges + Judges' staff + registry	If the judge passes an order, this is typed and written by the judge's staff, signed by the judge and entered into the eCourt website. Simultaneously, section officers note orders for record keeping and issue certified copies when required.

The reforms of the High Court **simultaneously target various stages** in this workflow. Their efforts are **being scaled both from one stage to other stages**,⁴ and within each stage, **from one case-type to others**.



Our study then analyses, strategies, design principles, contributing factors and challenges in this set of reforms.

Decentralised Policy Experimentation - CMS and The ‘Bail Module’



The High Court functions on Case Management System (CMS), an independently created software platform exclusive to the High Court. We attempt to trace the High Court’s journey from the centralised Case Information System (CIS) to this home-grown system and showcase the effectiveness of CMS through the “bail module”.



COVID Crisis - A Trigger for Change

From our interviews with the members of the Computer Committee, we gathered that ICT-enabled reforms were undertaken before 2020 as planned under the eCourts Project. However, the pace of these reforms increased substantially after 2020.

On 11 March 2020, the World Health Organisation declared the public health crisis under COVID-19 a pandemic. In a matter of weeks, the world and India shifted to digital ways of working. With a countrywide lockdown imposed on 25 March 2020 and the enforcement of physical distancing, courts across India started using video conferencing to hear cases. This was accompanied by facilities for e-filing and e-payment, wherever possible. These changes were

driven by a need to ensure that citizens continue to have access to justice during the lockdown and to avoid a justice gridlock once the pandemic passed. Like high courts around India, the Kerala High Court too was forced to switch to a digital mode of working, practically overnight. On 25 March 2020, the Kerala High Court announced that it would suspend physical functioning considering the nationwide lockdown. The High Court and district courts, under its supervision, extended interim relief granted to litigants and interim bail for the first phase of the lockdown (21 days) consequently. This relief was further extended till 30 June 2020 through several orders.⁵

During this period, urgent filing was done through a rudimentary e-filing system. Lawyers would email pleadings to the registry, and a special task force was created to sort through these pleadings and list the urgent cases. Lawyers would then be informed about online hearings through WhatsApp. The members of the special task force were routinely working till odd hours of the night managing the clunky e-filing, listing and online hearing system set up during that period. Despite this, the rapid changes forced on the High Court gave the Computer Committee⁶ pause to create a more natively digital system. For example, the objective of e-filing then was to create a system that can be managed completely remotely.

Mr Joseph Rajesh, Deputy Director of IT said, “Tomorrow, if there is a situation where staff cannot move out of their homes, Kerala High Court can still work.” The COVID-19 pandemic was the catalyst that expedited the adoption of digital technologies within the Court. The traditional paradigm of physical hearings was turned on its head, and lawyers appeared online on platforms such as Zoom and Google Meets through their computers and phones. Previously, online hearings were restricted to criminal trials where the accused person was in prison. The experience of the judges with online modes of working, albeit in basic forms, gave them the confidence to expedite the digitisation process. The pandemic overrode any hesitancy that may have existed before, leaving no other viable option.

“

The crisis caused by the pandemic compelled us to move on to the digital world, which otherwise we were very reluctant and hesitant to embrace. As there is no other alternative to access justice, the transformation to the new world of virtual court has become the need of the hour.”⁷

-
Sophy Thomas, the former
Registrar-General of the Kerala High Court

Digitisation and online hearings were not novel ideas even in other parts of India in 2020. Nationwide efforts under Phase I and II of the eCourts project monitored by the Supreme Court had set in motion the digitisation processes of the judicial administration process across district courts and high courts in the country. The project involved installing hardware and software needed to support digital efforts and creating and implementing CIS created by National Informatics Centre ("NIC") based on free and open-

source software for case management. A system of unique case number records (CNR) was created for each case, which was essential for processing case-related data.

Meanwhile, the Kerala High Court had been independently toying with the idea of digitisation since 2018, when it set up its own IT Directorate under the supervision of the Computer Committee. The COVID crisis only served to accelerate the process. The Directorate was then headed by Ms. Saleena VG Nair and the Deputy Director was Mr. Joseph Rajesh, both judicial officers. Five technical staff were hired in 2019 on five-year contracts to work in this Directorate. This team was headed by Mr. Ishaque KV, who formerly worked in the Kerala Secretariat in charge of IT systems there (forming the “IT Team”, which is a part of the IT Directorate).



Initial Planning

Bail cases, involving the basic liberty of citizens, were a primary focus of the Computer Committee in 2019. They visualised a digital module for bail cases that would connect various stakeholders like government pleaders and the police to the High Court, operationalising the vision of the eCourts Project for an “interoperable court system” One of the preliminary tasks the IT team under Mr. Ishaque KV undertook was the extensive mapping of the processes involved in a bail case. They had already started mapping the stages of bail cases in the High Court, including the role of each member of staff and judge in these stages by the time the COVID-19 pandemic hit. After the pandemic, the urgency of bail cases gained even more importance.

The High Court used the CIS at the time. The CIS software has a “core” and “periphery”. The “core” components consist of certain standard features that

individual courts cannot customise according to their needs. The courts can, however, modify and add features to the periphery. The IT Directorate tried to create this bail module on CIS by adding additional data fields. However, these additional fields had to be consumed by the “core” component and it was soon found that given the inflexibility of the “core” in CIS, it could not accommodate the Computer Committee’s vision of a digital bail module.

Since the NIC team is based in Pune, it was difficult to get their support. The technical members of the IT Directorate tried their best to fulfil the vision of the Computer Committee while working within the constraints of CIS, but it proved impossible.

A similar idea at the central level had been the motivation to set up the Inter-operable Criminal Justice System (ICJS), under the e-Committee of the Supreme Court. The ICJS is envisaged as a centrally managed platform aiming to “enable seamless transfer of data and information among different pillars of the criminal justice system”.⁹ However, the rudimentary form of the ICJS that existed then was not useful to the High Court for implementing the bail module. While the functional extent of the ICJS is the online transmission of FIRs from police systems to the court, it does not enable further transfer of data from courts to other institutions. The High Court wanted a system where, as soon as a bail application is filed, a notice goes to the concerned government pleader and the station house officer or investigating officer. Similarly, once the High Court orders release, the order is transmitted to the prison where the undertrial prisoner is kept and the magistrate under whose jurisdiction the undertrial prisoner is.

The Computer Committee then took the difficult but necessary decision to create a module outside the CIS to be developed by the in-house IT team of the High Court. It was not an easy decision to part ways with NIC.

“

We really tried working with CIS, but we could not integrate the features we wanted into CIS. It is not like we decided overnight to move away from CIS.”

-
Mr Joseph Rajesh, Deputy Director of IT

Starting with the bail module, the Kerala High Court created CMS as an alternative to CIS for the functions of the High Court. CIS is still used in district courts. A comparison of the features in CMS that are an improvement over the latest version of the CIS are in Annexure III.



Implementation of the “bail module”

On 15 June 2020, the Court piloted e-filing for bail cases.¹⁰ This new e-filing system was a significant advance from the email system used in the early stages of the pandemic. Feedback was sought from advocates and clerks to finetune the system. Given how novel this new system was, the Computer Committee and the IT Directorate created avenues to help advocates, clerks and parties-in-person navigate the system. An eSewa kendra was set up to assist advocates in e-filing their bail applications. The High Court uploaded demo videos and created phone, email and WhatsApp helplines to help advocates, clerks and parties-in-person with using the new e-filing system. From the outset, the Court recognised the crucial role played by diverse stakeholders in ensuring the success of the process. Justice Shaji P Chaly echoed this sentiment by saying, “We hope, with the support of the Hon’ble Chief Justice, the companion judges, Office of the Advocate General,

advocates, staff of this court, advocate clerks and the citizenry we can tread together towards success in our venture to attain full computerisation which is a need of the hour.”¹¹ The IT Team was quite proud of what it created with the bail module. Under the old system for bail cases, when an undertrial prisoner submitted a bail application, the Public Prosecutor assigned to represent the state would typically be notified through postal communication or by personally receiving the application. They would then call for the case diary (a physical document maintained by the investigating officer in that case) and related instructions from the relevant police station that could be anywhere in the state. Once this was physically delivered to the Public Prosecutor, the matter could then be heard. Similarly, once an order

for bail was granted, the order would be sent physically to the relevant magistrate, who would issue the release order. That release order would then be again sent physically to the prison from where the undertrial prisoner would get released. During our conversation with Mr Joseph Rajesh, he informed us that under the previous process, it would usually take approximately ten days, barring any avoidable delays, for the accused person to be released after filing a bail application. However, in the newly implemented bail module, every aspect of this communication is conducted electronically, ensuring instant and, wherever feasible, automated exchanges. The following is a comparison of the old and new bail modules.



Temporary space for the posting section while their office is renovated.

BAIL APPLICATION

HIGH COURT

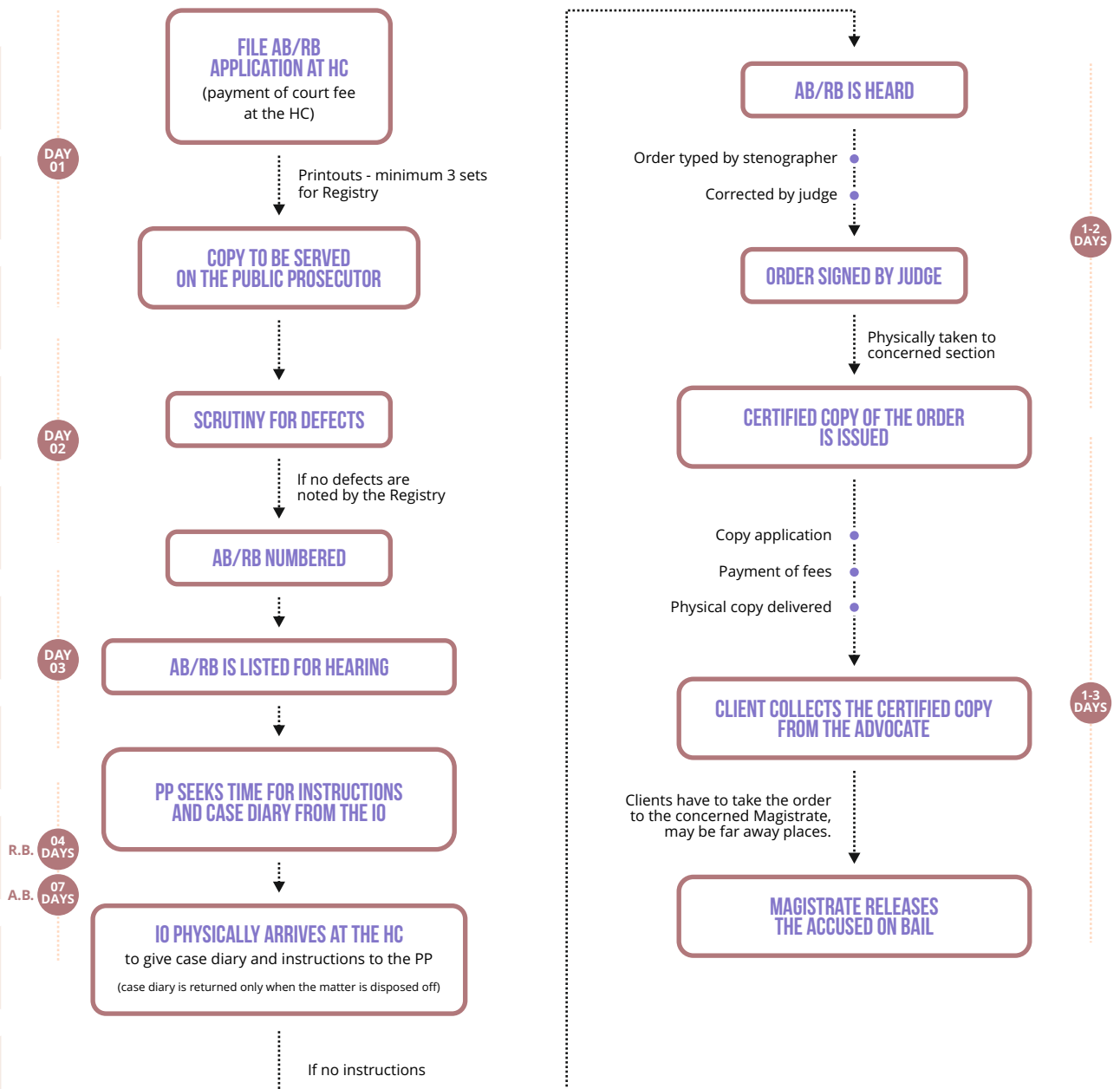
OLD SYSTEM



Abbreviations

1. AB - Anticipatory Bail
2. RB - Regular Bail
3. PP - Public prosecutor
4. IO - Investigating officer
5. HC- High Court

FULL
TIMELINE
12-18
DAYS



All timelines are on the basis of the estimates of the IT Directorate, prepared while designing the bail module.

BAIL APPLICATION

HIGH COURT

NEW SYSTEM



**FULL
TIMELINE
12-18
DAYS**

ONLINE FILING OF APPLICATION
(e-payment of court fee)

**AUTOMATIC MACHINE SCRUTINY
OF APPLICATION***
(takes minutes)

**AB/RB IS NUMBERED AND
AUTOMATICALLY LISTED****

The moment case is filed copy goes to:

- Dashboard of the PP
- Concerned Police Station
- Prison (if the accused is incarcerated)

**PP NEED NOT SEEK
ADJOURNMENT**

Reasons:

- IO need not travel to HC
- IO transfers case diary and documents electronically to the dashboard of PP

AB/RB IS HEARD

After hearing:

- - Order typed by stenographer
- - Corrected by Judge
- - Digitally signed by Judge

ORDER IS READY

A QR code is affixed on the Order.
If one scans the QR code they will be led to the Original Order in the HC Server

E-Copy of order instantly sent to:

- Jurisdictional Magistrate
- Concerned IO / Police Station
- Prison if the accused is incarcerated.
- Advocates' dashboards

**MAGISTRATE RELEASES
THE ACCUSED ON BAIL**

**DAY
01**

**01
DAYS** Min

**02
DAYS** Max
from date of filing

**01
DAYS**

*this is an option available to the advocate along with the option of scrutiny by a registry official.

**Bail applications are usually heard in a paperless court. In paperless courts, the causelist is generated automatically where human intervention is required only for confirmation of the list and not for preparation.

All timelines are on the basis of the estimates of the IT Directorate, prepared while designing the bail module.

Chapter - 2

E-Filing - A Necessary Step In Foundational Reform



The process of e-filing

The bail module laid the groundwork for far-reaching reforms for all cases in the High Court. To begin with, it established that a digitally native e-filing system was practically feasible. While many other high courts have attempted to introduce e-filing, it is often in addition to physical filing¹² or the e-filed document needs to be further integrated with court systems for the next stage of processing. E-filing is considered a mere submission of an electronic document, sometimes without the necessary OCR to make it machine-readable. OCR is needed not for machine-readability but also to enable visually challenged advocates and litigants to access the pleadings through tools that convert text to synthetic speech.

E-filing in the Kerala High Court is envisaged as an **initial step in the digitisation of the entire process rather than merely creating a virtual version of the physical file.**

This mode of e-filing enables the case file, in its entirety, to be an easily navigable, readable, searchable and annotated electronic document capable of differential levels of access by multiple stakeholders simultaneously.

The Electronic Filing Rules for Courts (Kerala), 2021 were notified in May 2021 providing a legal basis for e-filing.

From 1 August 2022 onwards, all bail and tax cases had to be filed online. On 1 January 2023, the High Court took the big plunge and made e-filing mandatory for all fresh cases. Acknowledging the existing disparity in digital literacy among different segments of society – those well-versed in computer and internet usage and those less acquainted – eSewa kendras were established. These centres provide assistance to advocates, clerks, and litigants in adapting to the new e-filing system. On 27 March 2023

we got a chance to observe the e-filing process at the eSewa kendra. Mr. Pradeep Kumar and his team explained the eSewa services offered by the High Court to litigants and took us through the filing process as we observed one staff member help a young advocate file a writ petition.

The advocate of the person initiating the legal claim (“Claimant” - this could include an applicant, appellant, petitioner, plaintiff and their advocate etc.) has to type their “claim” (application/petition/ plaint) on their own computer system or the free computer resources made available to the public in the High Court. Alternatively, they can type the claim document, print it and scan it into an OCR-readable format. To e-file the claim document, the Claimant has to

- fill up an online form through the e-filing portal (e-filing form) where they enter basic data about their claim (identity of the claimant, identity of the advocate, case type, reliefs sought etc).
- upload the main claim document and supporting documents (such as synopsis and the vakalatnama) as separate annexures onto the e-filing portal.
- pay the required fees (including court fee, legal benefit fund fee, welfare fund etc.) through online channels by credit card, net banking or UPI.

All these steps can be done on the Claimant's own computer system with an internet connection or from the eSewa kendra. At the eSewa kendra, we observed that throughout this process, the staff were guiding advocates wherever they were unclear about how to continue (for more on the functioning, design and importance of eSewa kendras in the High Court, see page 29). Once these steps are complete, the system generates an index for the case. The system also numbers the pages in the file, which eases the burden on advocates and their clerks of manually numbering large documents. **This is also a significant step towards the goal of making “documents machine-readable” as identified for Phase III of the eCourt Project.**¹³

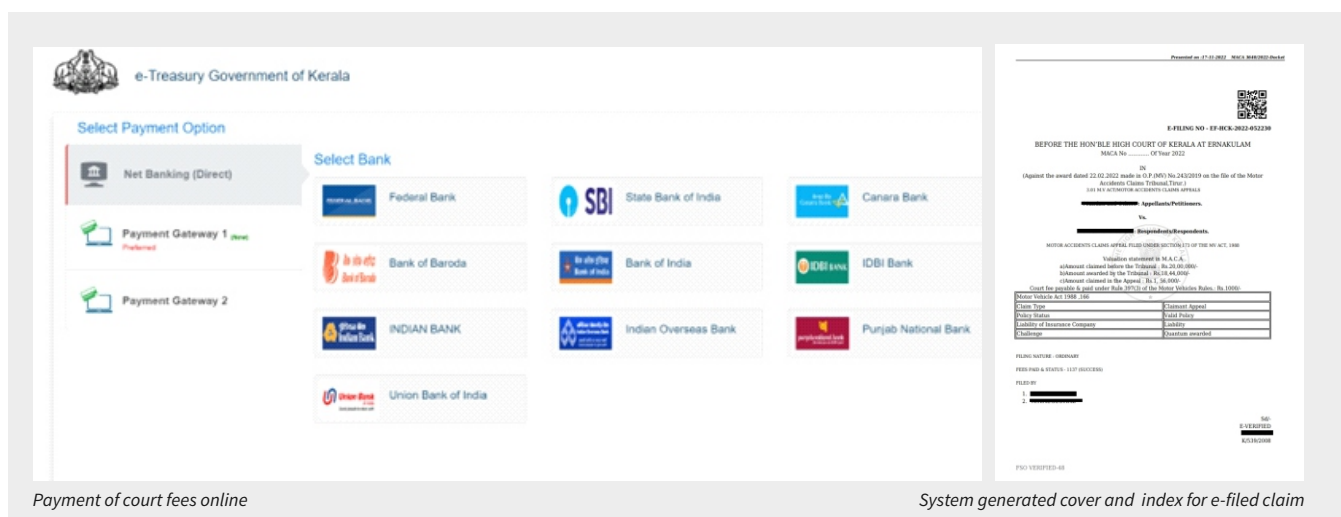


The impact of e-filing on caseload

From our interviews with Mr. Ishaque KV and his team, who designed this system, we gathered that this is the first step necessary to digitise the entire chain of processes after filing, for the following reasons:

1. It helps build an integrated digital case file

The CMS creates an auto-generated index and front page to the claim from the data entered into the e-



Payment of court fees online

System generated cover and index for e-filed claim

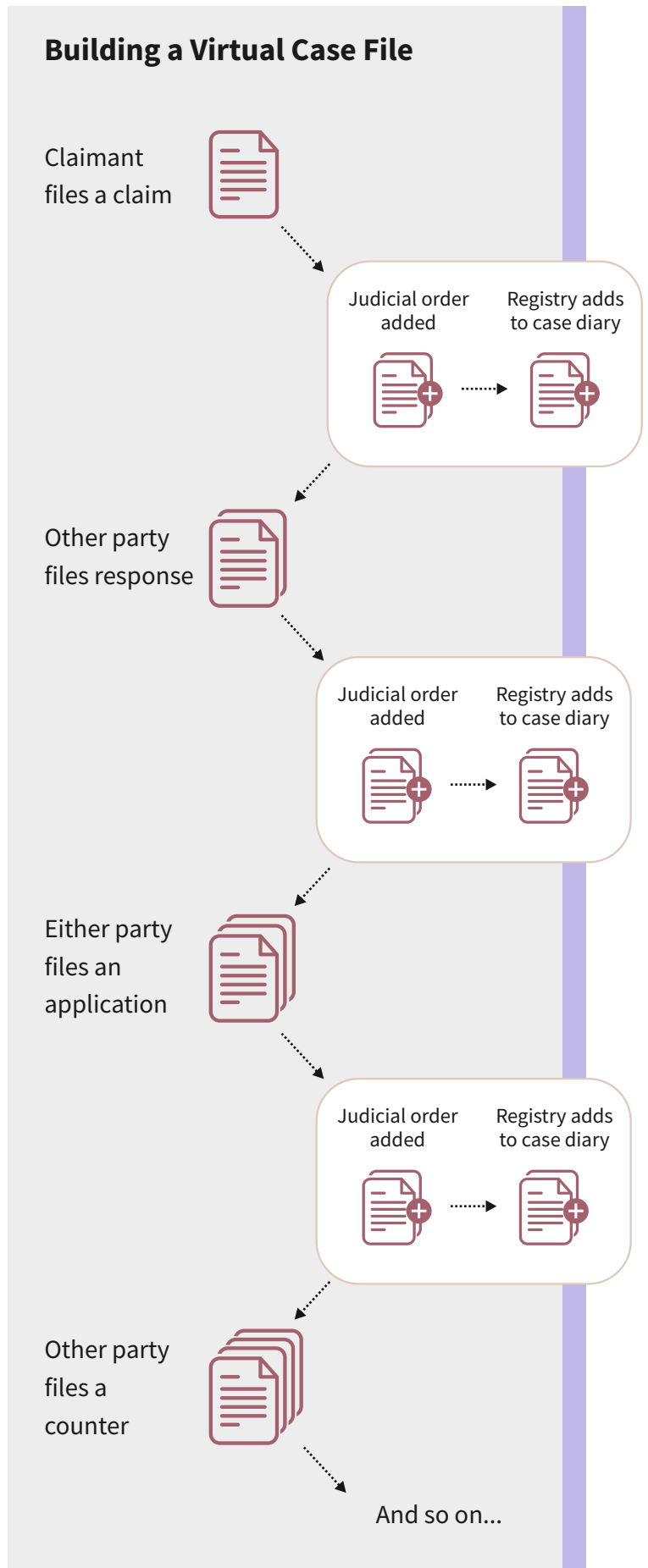
filing form by the Claimant. The claim is the first step in the process of creating a digital case file. The claim is further supplemented automatically with subsequent filings such as responses from other parties, further applications, daily orders etc (all actions initiated by other stakeholders but as a result of this claim) to the original claim document (“Virtual Case File”). The entire Virtual Case File is automatically paginated, bookmarked and available simultaneously to all the parties to the case, to the court staff on a needs basis, and to the judges, each on their own dashboard. Thus, the same file is now available to all relevant stakeholders with differential access and is automatically updated as fresh events in the case occur.

2. Integration of e-filing with other stages in case life cycle

The e-filed claim is worked on by the Scrutiny Section and the Listing And Posting Sections (in “paperless” courts), all of whom work on the digital file itself. It is viewable by all relevant parties - it can be worked on and processed depending on the person accessing the Virtual Case File. For example, when an appeal is filed against the decision of a district court, the High Court can only proceed with the full set of files pertaining to that case which is in the district court. The litigant then waits for the case files to be physically transported from the district court to the High Court. A writ appeal requires the movement of case files within two courtrooms within the High Court itself. Now that e-filing is functional in all district courts in Kerala, the physical movement of files will be replaced by the action of loading the Virtual Case File over the internet. **This is a significant step towards the goal of making a “digital case management system” as identified for Phase III of the eCourts Project.**¹⁴

3. Opportunity for automation

Within CMS, components of the e-filing process are being automated to the extent possible. For example, the court fee calculation is done through an algo-



rithm based on the details entered in the e-filing form. The first page of the file with crucial information (that forms the basis of data entry into the eCourts database) is automatically populated. Earlier, caveats¹⁵ in each case were tagged manually by the data entry officials and section officials, but they are now auto-tagged by the system, which checks whether any live caveat is available in the database.¹⁶

4. Elimination of redundant data entry

We were pleasantly surprised to find that e-filing had made manual data entry, which we had seen in other courts, redundant. Instead of data being entered manually at multiple points (by the advocate while e-filing and re-filing, court data entry operators feeding data into eCourts etc), the data is entered once and intelligently auto-populated where required again. This reduces errors of inconsistency.

It also distributes the task of data entry amongst many stakeholders, with each stakeholder entering only new data rather than re-entering data that is already in the system. Each of these stakeholders is incentivised to be accurate and needs to enter fewer fields.

We also gathered from our interviews with advocates practising in the High Court that e-filing in the Kerala High Court is also accompanied by filing of physical copies in some cases. On inquiring with the IT Directorate we found that these copies are used for the comfort of some judges who find it difficult to go through voluminous documents on their dashboard and in response to the complaints of the advocate clerks. However, they clarified that administrative procedures such as scrutiny and listing in the paperless courts occurs on the electronic version and not the physical version, enabling the transformation of these processes.



The Advocates' Dashboard - a tool to incentivise e-Filing

The advocates' dashboard is one of the key visible innovations of the CMS. All cases that are e-filed by and against an advocate are automatically displayed on the advocate's dashboard. The purpose of dashboards is to aggregate information about the cases, displaying important metrics in ways that are visually appealing and easy to understand.¹⁷

The homepage of the dashboard allows the advocate to get a bird's eye view of their cases. They can see the number of cases filed, pending and disposed cases, and matters listed for that day and the next. A calendar feature generates prompts for matters listed on the day and the next day and helps generate a personalised cause list. Advocates can also track their filings and status of each case.

Young advocates who are familiar with digital work find this dashboard to be especially advantageous due to its user-friendly interface.

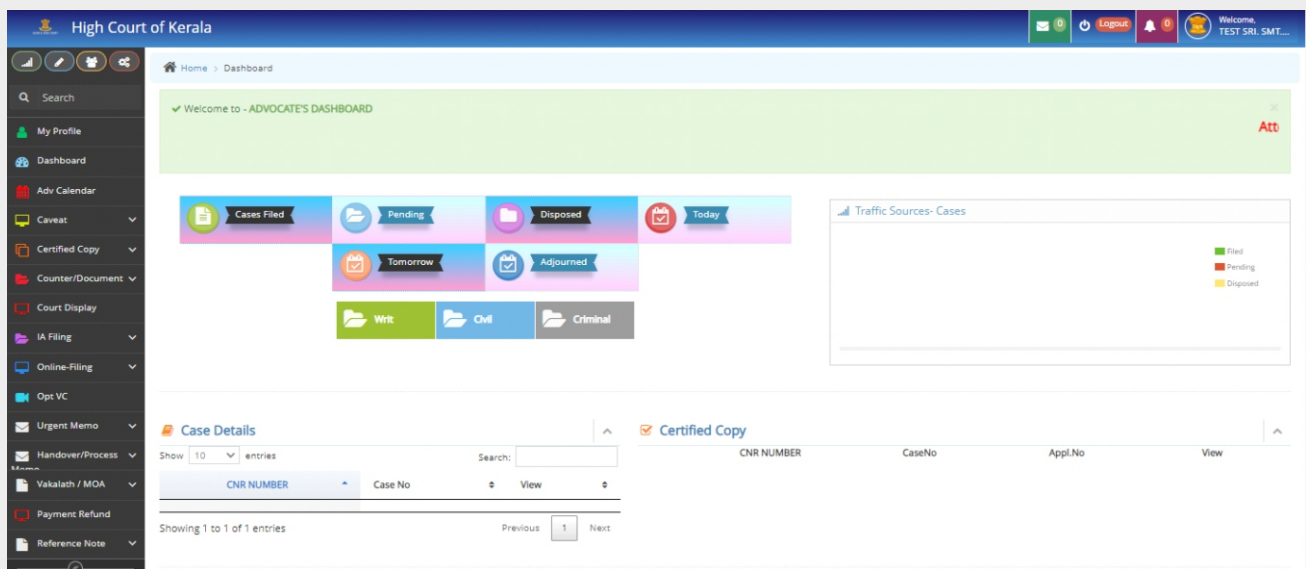
This interface offers a seamless access to pleadings. An incident from our visit in March 2023 illustrates this advantage: In the courtroom, we witnessed several young advocates diligently swiping through their phones. A close look revealed that they were meticulously preparing for their hearings by reading their case files on their phones through their dashboard.

The dashboard also displays incomplete cases where the pleadings have not been submitted yet. The advocate can also see the status of scrutiny, registration, listing and video conferencing information. In case the advocate or party in person wants their case listed urgently (after admission), they can file an urgent memo online. All these features encourage advocates to adopt digital case management systems and e-file their cases.

A further feature through CMS is that there are separate dashboards for advocates, parties in person, the Advocate General, advocate clerk and standing counsel, each customised to their functions.

“The dashboard has made our lives easier. I don't have to keep physical copies, I can just carry an iPad. I have everything there, and there is no question of misplacing a counter in an old case.”

-
Vijay Varghese Paul, a young advocate with his own practice



The Homepage of the Advocates' Dashboard

Case tracker in advocates' Dashboard

SI No.	Details	e-File Details	Case No.	Pet/Resp	Status	e-File Print	Judgment/Order (Digitally Signed)	Counter/Objections	IA	VC
1		EF-HCK-2022-047176 E-filed On : 17-10-2022	Not Registered Filing No: /	MOHAN/ SUMESH	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
2		EF-HCK-2022-037316 E-filed On : 20-08-2022	Not Registered Filing No: /	TEST/ TESTER	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
3		EF-HCK-2022-028513 E-filed On : 06-07-2022	Not Registered Filing No: /	TEST NAME/ ADAT GRAMA PANCHAYAT	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
4		EF-HCK-2022-028503 E-filed On : 06-07-2022	Not Registered Filing No: /	TEST PETITIONER/ TEST RESPONDENT	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
5		EF-HCK-2022-026851 E-filed On : 27-06-2022	Not Registered Filing No: /	TEST/ TEST	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
6		EF-HCK-2022-026755 E-filed On : 08-07-2022	Not Registered Filing No: /	ASDAD/ JSHJ	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
7		EF-HCK-2022-026298 E-filed On : 23-06-2022	Not Registered Filing No: /	TEST/ TEST RESPONDENT	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
8		EF-HCK-2022-025916 E-filed On : 22-06-2022	Not Registered Filing No: /	TEST NAME/ ADAT GRAMA PANCHAYAT	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
9		EF-HCK-2022-024955 E-filed On : 16-06-2022	Not Registered Filing No: /	TEST/ ADIMALY BLOCK PANCHAYAT	Unassigned to PSC by the Controlling Officer	✓ AFFIRMATION RECEIPT	Nil	Nil	Nil	
10		FF-HCK-2022-024677	Not Registered	TFPT NAMF/		✓ AFFIRMATION				

Chapter - 3

Online File Scrutiny - the iterative approach



The first phase of online file scrutiny

In the days following our observation of e-filing, we visited the Scrutiny Section to see how the court staff use the Virtual Case File. A claim, once filed, is scrutinised by scrutiny officers for procedural defects before a judge hears the case. These officers in the Kerala High Court are called File Scrutiny Officers (FSOs). FSOs identify procedural defects in the file like missing signatures, inconsistencies between the details of annexures and the main claim, mischaracterisation of a claim resulting in the wrong case type etc. Once identified, the advocate filing the claim is required to correct these defects and present the claim again. The claim is listed for its first hearing before a judge/bench if it is found to have no more defects.

Earlier, the scrutiny process took place manually during office hours (10 am to 5 pm) where the FSO physically noted defects, tagged page numbers or made notes on the margin of the file. The advocate clerk or junior advocate handling the case often visited the Scrutiny Section and interacted with the FSOs to check the status of their filing.

The process of scrutiny is now digital in the Kerala High Court. When we visited the scrutiny section on 28 March 2023, Neena Ramachandran, Assistant Registrar, explained the digital scrutiny process to us. The Virtual Case File is assigned through CMS to an FSO, ensuring a balanced apportionment of workload between FSOs. Each FSO is granted secure login credentials giving them access to a dedicated dashboard. Within this interface, the FSOs can conveniently view the case files that have been assigned to them and mark defects digitally. Notably, the system affords FSOs the flexibility to access their designated dashboard from home as well, enhancing operational flexibility. At that time, they were arranged into three shifts between 8 AM to 8 PM.¹⁸

During our time at the Scrutiny Section, we observed an FSO Sujatha (name changed) scrutinise two case files. Her dashboard informed her of the number of case files she had to scrutinise, the status of each file, the time she took to scrutinise each file, and her shift timings.

During the scrutiny process, she marked page numbers and entered a list of defects into a column visible to the advocate who had filed the pleadings. The advocate was notified when she started the scrutiny process and when it was complete. The advocate had the option to “chat” with her through the dashboard and respond to the defects she pointed out.



It was apparent that advocates were not yet accustomed to communicating with FSOs through the chat function. During the time we spent with Sujatha, an advocate visited her and clarified his doubts in person about the defects she had raised in his file. It appeared that physical interactions continued and supplemented the virtual process. The advocate left

and she let out a sigh as she told us, “This new system has created some friction between FSOs and advocates. Advocates Lawyers were not so involved under the old system. Now e-filing has to be done from their logins so they feel we are being too strict about defects. We cannot be lax because there are some judges who are very strict about defects. We are stuck in the middle.”

From our conversation with the FSOs we gathered that there was potential for certain fundamental defects to be automatically detected rather than having FSOs point them out. Sujatha gave us an example of the payment of court fees. Without paying a court fee, the file should ideally not reach the FSO at all.

We also found that there was some friction between FSOs and advocates regarding scrutiny. While Sujatha appreciated the option of working from home, the extended hours of availability of the FSOs allowed advocates to call them repeatedly for updates on their cases. On the other hand, a common complaint from advocates we interviewed was that the new shift system created a situation where some files were scrutinised twice by two different FSOs - the first time by the FSO on duty at the time of submission of the claim and again by a different FSO on duty when the corrected version was re-uploaded. This process resulted in arbitrariness, where some claims were scrutinised more than others. This also led to an extended scrutiny process as defects were being identified by various FSOs thereby increasing the time required for review. The resulting impression was that the digital scrutiny was not faster than the physical one.

We presented these issues to the members of the Computer Committee the next day, only to find that they were aware of the problem and were working on solutions.

During our second visit in June 2023, a little over two months later, the Computer Committee had attempted to solve problems raised by FSOs and advocates with two changes. The three-shift mechanism had been changed to just two shifts between 9 AM to 6 PM.¹⁹ The allocation algorithm was updated to ensure that after one FSO identified defects, the claim was allocated again to the same FSO, reducing the chances of a fresh set of defects being identified by a different FSO. Along with this, the Computer Committee developed a comprehensive list of defects in collaboration with the scrutiny section to reduce the FSOs' discretion. The FSOs would be advised to limit their scrutiny to these points only, to reduce friction with advocates on which defects would amount to questions of law. Thus, **a combination of administrative management, effective communication and technology was used to address the issue.**



The move to “automatic” scrutiny of bail applications

From our interviews with advocates in March 2023, we understood **that the new virtual scrutiny system does not always reduce the time taken for scrutiny to be completed** despite the Scrutiny Section working for longer hours.

However, the reduction of time taken was not the only goal of this system. The scrutiny process was an opportunity to test new organisational systems and automation while acclimatising court staff and advocates to an environment of swift change.

When we visited the High Court in June 2023, the Computer Committee had an ambitious plan to automate the entire scrutiny process of bail applications through algorithms without any manual inspection of physical or virtual files by FSOs. **If successful, the automatic process will complete scrutiny in a matter of minutes as compared to the current time-line of 24 to 48 hours.** The IT Team developed the software to scrutinise bail applications and organised a consultation and deliberation process with the representatives of the Bar Association to assist with the design of the software which we got to witness.

Consultation and participation of stakeholders

On June 27 2023, we attended a demonstration of machine scrutiny followed by a consultation. The IT Team demonstrated the software to the representatives of the Bar Association (three out of four of whom we had previously interviewed in March 2023). They raised their concerns and the Director (IT) and Deputy Director (IT), present at the meeting, immediately took decisions where possible to address these concerns. Since the member of the IT Team who had created the system was in the room, he understood the exact concerns of the end user, i.e., the advocate.

At the same time, the advocates suggested ways to make the scrutiny process easier and reduce errors. The environment appeared collaborative and enabling to all the participants. Discussions, in a mix of Malayalam and English, were relatively informal. The advocates talked directly with the technical staff, the IT Director and Deputy Director, suggesting changes they would like and the technical staff responded with ideas that were technologically feasible to address the advocates' concerns.

By 10 July 2023, the machine scrutiny of bail applications was live in the Kerala High Court²⁰ and is being described as the first such process in an Indian court.²¹

What began with an experimental dashboard based virtual scrutiny in three shifts opened the path to a completely automatic scrutiny process. In this instance, transformative technology was introduced through an “iterative and incremental approach” that enabled “rapid and flexible response to change” as envisaged by the Vision of Phase III of the eCourts Project.²²



Corridors of the High Court

Chapter - 4

“Paperless” Courts - A misnomer for a prototype digital court



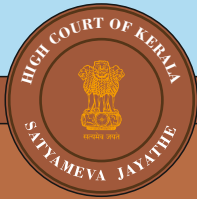
The “paperless” court project of the Kerala High Court was formally inaugurated on 1 January 2022.²³ The media presented this as an eco-friendly measure of creating spaces where case proceedings could take place without paper files.²⁴ On 1 August 2023, three courts were made “paperless” courts.²⁵ These had one division bench and two single benches that heard a combination of bail and tax matters. By June, 2022, three more courts, including one division bench, operated in “paperless” mode.²⁶ When we observed the proceedings of the paperless courts on 30 and 31 March 2023, seven courts operated in “paperless” mode.

We had the opportunity to observe the proceedings in the “paperless” court presided by the Hon'ble Justice Anu Sivaraman. Seated in front of a large touchscreen computer kept at a convenient angle, she had a full view of the courtroom while being able to make notes on the screen. She could use her dashboard on the screen with easy access to virtual case files of all the cases to be heard in that courtroom. Court officers in the courtroom were also provided with computer systems. From our interview with court officer Sanoop George, we learnt that the judge's screen is integrated with the computer of their court officer such that the court officer can pull up files and documents required by the judge

through their own system and enable these documents to appear on the judge's screen at the same time. This is useful for judges who are not familiar with ICT systems.

In addition to the facilities for judges, the advocates are encouraged to argue their matters without relying on their paper files. Four computer systems are placed for the advocates, two on either side of the aisle. All these systems are equipped with research tools and judgment repositories such as SCC Online.





Display Board

Microphone

Computer

Camera on Judge

Computer

Monitor

Computer

Camera on advocate

Computer

Computer

Computer

Microphones

Computer

From our interviews with advocates, we gathered that they found the practice of presenting arguments with the help of a computer difficult to adopt. Files were voluminous and easier to go through physically while trying to emphasise a point.

They were reluctant to scroll through a long digital file and were apprehensive that the internet services, if disrupted at a crucial moment, would cost them the judge's attention and affect their case. A common refrain among the advocates interviewed was that “paperless” courts were paperless “in name only.” According to them, advocates need their paper-books and most judges do as well.

Some of the younger advocates we spoke to also shared that attending hearings through videoconferencing was frowned upon by some **judges who expected physical attendance in court as a mark of respect.**

Nonetheless, **though advocates who were arguing while we were in the paperless court did not rely on the computer systems, other advocates who were not arguing at the time were using the systems provided.** We observed advocates checking case files on them and using them for research and assisting advocates using them to support the arguing advocates.

However, the “paperless” nature of these courts goes much beyond the courtroom as a physical space and extends into an increasingly digital end-to-end case flow management system - **a concept that has not been communicated effectively to the advocates.**

The members of the IT Directorate explained to us that the judges referring to online files in the courtroom during hearings was only one of the

actions taken on that case file during the life cycle of the case. Numerous administrative tasks are carried out on the case file itself before the matter is heard and right after it is heard (described as “file processing” in our case workflow).

In active pending cases, case files, after successful scrutiny and first listing, are stored in individual “section offices” based on case type.²⁷ Each room operates as a storage space for case files of the concerned case type and houses a section office consisting of section officers. These officers in these sections perform a wide variety of administrative tasks like sending the case file to the relevant judge's chamber when the matter is listed, storing and tracking case files, receiving urgent memos²⁸ on case files, indexing of old case files and uploading of orders to the eCourts website. They work in coordination with the court officer who records the judges' orders and instructions, notes and next steps in the case file.²⁹ The Judge's personal assistants also work on the case file and assist the judge in passing orders or recording orders dictated by the judge.

The Vision Document envisions interoperability of court systems with other institutions such as prisons and police.³⁰ However, a preliminary step is the digital integration of the various internal sections within the court system, as the High Court attempted in “paperless” courts.

In “paperless” courts, administrative tasks related to file management are carried out in CMS where the court officer, section officer and personal assistant can all access and track the movement and work on the virtual case file for processing beyond the hearing. This can potentially save the time spent on physically moving the case file from one officer to another and can allow multiple officers to work on the case file simultaneously. In effect, the “paperless” courts are attempting to become a digital court where all redundant physical files and processes are replaced by digital alternatives in the following ways:

1. In paperless courts, the causelist of the “paperless” matters is generated automatically and is verified and edited by staff manually only if required. On the other hand, in non-paperless courts, the causelist is manually created, requiring physical movement of case files and order sheets from court officer to personal assistant to section officer and then the listing officer.
2. The removal of the need to physically transfer files for administrative tasks in “paperless” courts presents the opportunity for process re-engineering. The IT Directorate is analysing how to reduce redundancies in this process and has modified the process. For example, from our interviews, we gathered that the release of an interim order required up to five different approvals while a final order required only three. This has now been changed and simplified in the paperless courts.
3. In “paperless” courts, judges can digitally sign files and orders. They can also enter short orders into the system themselves³¹ - an option unavailable in other courtrooms.

The Computer Committee aims to finetune this system and extend it to as many courtrooms as possible.

This digital case administration is possible only when the entire list of cases before that court is in digital form, including those filed before January 1, 2023 (the date e-filing became mandatory). A separate process of digitisation of older case files is necessary for more courts to function in “paperless mode”. **Unfortunately, the High Court has started digitisation of case files of disposed cases before that of pending cases, delaying the extension of the “paperless” work system.**



The manoeuvrability and sophistication of the judge's dashboard is essential to the functioning of these “paperless” courts, without which judges do not have enough of an incentive to switch from paper to computer systems. CMS tackles this issue head on by developing a wide range of tools aimed at improving the user experience of judges.

The Judges Dashboard - Key to enabling digital courts

An essential tool for judges is a dashboard that offers a comprehensive overview of their workload and the performance of their staff. This dashboard plays a pivotal role in optimising judicial efficiency and resource allocation within the court system. By fully integrating this system into the daily practices at all levels of the judiciary, judges can effectively monitor key performance indicators, such as disposal rates, the frequency of hearings per case, time intervals between hearings, and the time allocated to each stage of a case.³² An integrated dashboard empowers judges to manage their time judiciously through dynamic and real-time scheduling of cases. The judges can prioritise matters that demand immediate attention, thereby streamlining the judicial

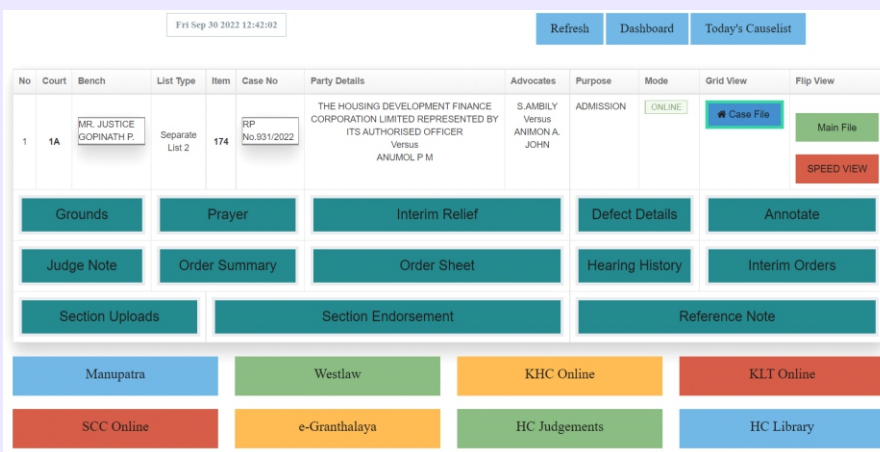
process and ensuring that critical cases receive the appropriate focus.

In the judges' dashboard of the Kerala High Court, judges can view their daily cause list, the case bundles of all the cases before them (for all the e-filed and digitised cases), law journals, Annual Confidential Reports of staff and case law.

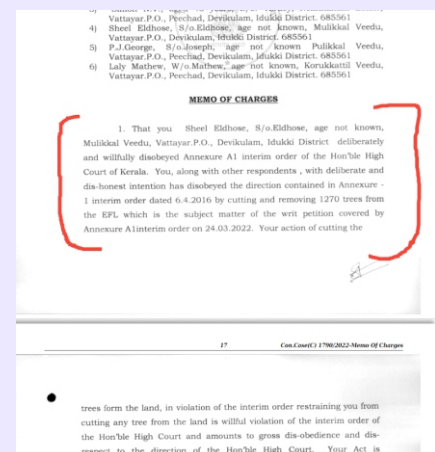
Within the case bundles judges can make notes and annotations. They can use a voice-to-text tool to dictate notes and orders.

When judges dictate short orders in court, once they sign them, they are sent to the advocates' dashboard.

The Chief Justice has additional features customised to their functions. They can see an analysis of the roster of different judges and benches. This can help the Chief Justice allocate the cases optimally, and ensure that the roster is truly balanced. The National Judicial Academy Module allows the Chief Justice to effectively assign training programs to judges by keeping a searchable record of the various training programs (with descriptions) attended by each judge.³³



All in one display in the Judges' Dashboard



Annotation tools for judges

Strategies And Design Principles

In this section, we analyse the strategies and design principles employed by the Computer Committee, the IT Directorate and the IT Team in their approach to achieving their goals, including change management.



Extensive mapping and re-examination of existing processes

Administrative functions within a court can be extensive, spanning across various internal departments and unconnected in the present day from the original purpose they were devised for, acting as a black box in policy reform.

From our interviews with members of the listing and posting section, section offices and scrutiny office, we often found that officers in these sections often did not know what administrative actions preceded and followed the functions they performed or how their function fits into the larger case management system. A common complaint from advocates was that they were required to follow up with various court staff - the FSO, the court officer, and the personal assistant to the judge - at different stages to nudge the “movement of the file”.

One of the first tasks of the members of the IT Directorate when it was set up was to map the flow of cases through the High Court system, including the role of each staff member and judge in the process. The team tried to understand the role of each

branch/section and then mapped case flow and the relationships within and between them. This mapping endeavour spanned the period from 2018 to 2019 and continues in some form today. See Annexure II for a graphic derived from the mapping by the IT Directorate of the a typical life cycle of a case.

Understanding the intricacies of the existing workflow helped plan and coordinate efforts. Judges in the Computer Committee understood the various administrative functions the court staff undertook, many of which had not been considered for reforms in years. When a process is proposed to be digitised, the IT team typically begins with the map of the existing workflow and proposed workflow, identifying points of process engineering. This helped them understand the legal purpose of each step of the workflow.

Once processes were mapped, the entire team could interrogate their role in the larger system, what value these processes added and whether ICT systems could simplify any of them.

This helped them identify areas ripe for improvement through digital interventions. A comparison of the mapping of offline and online processes is given in Annexure I.

This mapping exercise also enabled the IT Team to develop tailored digital solutions with clearly identified “end users” as they refer to the consumers of their solutions. Thus, the e-filing system was designed keeping in mind advocates, while the scrutiny systems took into account the needs and capabilities of FSOs. Recognising hierarchies,

dependencies and interactions between personnel helped the technical team **design a digital framework that reduces redundancies and uses technology to re-imagine processes rather than replicate paper-based processes in digital form** - a key feature of the “digital court” envisaged by the eCourts project.



Phased implementation combined with quick adoption of user feedback

The Computer Committee has introduced technological changes in a phased manner, each phase acting as a mechanism to test and improve the solution.

Justice Nambiar explained this, “... we have been mindful of the effect such measures can have on the legal fraternity of judges, lawyers, court staff, lawyer’s clerks and have deliberately chosen to proceed cautiously and in a phased manner, with due consultation and deliberation with all concerned.”³⁴ This is integrated with frequent feedback loops involving multiple stakeholders, an approach recommended by the eCommittee in its vision of the implementation of Phase III.³⁵ For example, the e-filing process was introduced for only one case type, ie, bail, a relatively straightforward and format-friendly case type with a high impact on fundamental human rights. A WhatsApp group was formed with key members of the IT Directorate where advocates could voice their concerns with the interface and software at all times. The IT Team responded to these concerns promptly with quick fixes to their solution.

This allowed the community of advocates to a) learn how to e-file documents in a relatively simple case type and b) build trust in the court administration that their legitimate concerns were being heard promptly.

This type of mechanism is contemplated in the Vision Document.³⁶

Simultaneously, the IT Directorate had numerous consultative meetings with the representatives from the Kerala High Court Advocates Association (“Advocates Association”) to hear their concerns about the e-filing process and to signal that the change was likely to bring advantages to all the stakeholders. Many of the advocates we interviewed who file their cases themselves (as opposed to younger members in their team or their clerks), when asked how easy it is to e-file matters, responded that there were technical issues when it was introduced, but these were fixed relatively quickly resulting in what is now a convenient system.³⁷ Once the e-filing procedure had been adopted with relative efficiency, the Computer Committee decided to make e-filing mandatory across all case types.

Similarly, the introduction of changes in the scrutiny system took into consideration constant feedback from FSOs and advocates enabling the progress from virtual scrutiny to completely automatic scrutiny. It is important to note that in our interactions with both stakeholders, we found that their feedback was not limited to problems they encountered while using the software but also included suggestions on how automation can be improved.

This indicates that their concerns are shifting from mere adaptation to actively demanding technological transformation.

The Vision Document identified the limitation of judges being the only stakeholder communicating needs for design to the NIC and stated that this “misses the perspective of other users, such as advocates, litigants, researchers, citizens whose needs and perspectives are critical for effective adoption.”³⁸ This shortfall is addressed to a great extent by the IT Directorate and the Computer Committee by attempting to gather feedback from a wide range of stakeholders and keeping communication lines open.



Active and constant support from the IT Team to users

The adoption of ICT-enabled reforms places a significant burden of change on users. For example, in the case of e-filing it places the burden of change on litigants, advocates and clerks. E-filing requires a degree of familiarity with computer systems and resources to type documents and upload them via a stable internet connection. Mandatory e-filing was met with resistance. The Advocates Association did not accept these changes initially. In a letter dated 12 May 2021 the Advocates Association opposed the introduction of e-filing and recommended reverting to the email filing system followed in the initial stages of the COVID-19 lockdown. In a representation, the All India Lawyers' Union expressed that implementing e-filing rules without providing necessary infrastructure facilities to the advocates and without sufficient training would not serve the purpose for which it is proposed to be introduced.³⁹

From the court administration, efforts to encourage the change included a fully functional and active e-sewa Kendra along with periodic training. Training of advocates on the use of e-filing systems included the appointment of advocate trainers who acted as peer educators,⁴⁰ training sessions conducted for advocates (sometimes on demand)⁴¹ and circulation of “demo” videos.

e-Sewa Kendra: Trying to bridge the Digital Divide



Though the e-Sewa Kendra was envisaged as a comprehensive help desk for litigants and advocates,⁴² it now functions as an e-filing service centre for advocates and litigants unfamiliar with, or without access to computers and the internet. It is designed to be approachable. Emphasis is placed on teaching advocates rather than merely performing an administrative function.

On 27 March 2023 the kendra had four manned computer systems and three unmanned computer systems equipped with scanners. The manned computers have staff from the High Court to assist the advocate or litigant in e-filing.

Token system

Advocates or parties-in-person can apply for a token online to use the e-Sewa kendra facilities and receive a token number. They can monitor the e-Sewa kendra board to see when their turn is arriving.

Physical Design

The e-Sewa kendra is easily accessible, located on the ground floor in the courtyard of the High Court. It is an open environment where the staff assisting the advocates face the advocate/party in person without physical barriers. This is an improvement from courts where the court staff assisting the advocates sit behind grilled windows, making it difficult for the advocate/party to see what and

how the court staff enters data. That design enables the court staff to merely upload documents without empowering the advocate/party to do it themselves.

In the Kerala High Court, the monitors of the assisting court staff are mirrored onto another screen along with a mouse facing the advocate/litigant, allowing them to verify the information entered by the court staff and to learn how e-filing is done by watching the process each time they file a document.

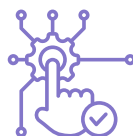
In addition, the unmanned systems enable advocates/litigants to try e-filing themselves with court staff to assist when needed. Advocates and clerks who do not have access to computer systems are free to use this facility in the premises of the High Court. It is no surprise that one of the demands of the advocate clerks on a strike against mandatory e-filing in all courts across the state is the establishment of more e-Sewa kendras.⁴³

Similarly, online scrutiny required FSOs, some of whom developed familiarity with smart devices only recently, to navigate an interactive dashboard. **Training for court staff included sessions on computer proficiency in general**, including the use of Ubuntu, multiple screen management, tab and window management,⁴⁴ in addition to specific training on use of the software that the staff member was required to use.

The IT Team train the staff in smaller groups where each member can easily see the presentations and interact with the IT Team members. From our interviews with FSOs, court officers and officers in the listing section, we found that members of the IT team are accessible and available to assist court staff beyond scheduled training sessions and assuage their concerns. This is in addition to video tutorials customised to each stakeholder, including FSOs, court officers and section officers.⁴⁵



Training session for court staff



Incentivising adoption of technology

Solutions visualised by the Computer Committee and developed by the IT Directorate offer incentives for adoption. We can consider, as an example, the e-filing system. e-Filing of documents along with physical filing, as is the practice in many other courts in India, results in e-filing becoming an added step in an already laborious process for advocates. For its successful adoption, e-filing should present advocates with tangible advantages. In the Kerala High Court, various portions of their case file are automatically filled, the entire case file is made available virtually on their dashboard and they can monitor the progress of their file online during scrutiny.

Now, after the introduction of machine scrutiny of bail applications, advocates are given the option of getting their files scrutinised by FSOs and through machine scrutiny. The option of machine scrutiny offers the compelling advantage of speed since the process can be completed in a matter of in a matter of minutes. Therefore, adopting technology in these instances offers tangible benefits to the users.

The Vision Document identifies five main stakeholders who this project benefits – citizens, advocates, judges, court staff and the legal system. **Of all these stakeholders, judges are the only project**

beneficiary who have significant powers to shape the project. For successful adoption and effective decision-making, they need to see the advantages of using ICT systems themselves. The CMS achieves this to some extent.

A majority of judges in the High Court are aged 40 years and above, and many of them are relatively new to working with ICT systems. This transition to digital technology comes later in their careers, posing a challenge for older judges who are accustomed to using paper files. The CMS considers this, designing features specific to judges on the basis of their regular feedback. In one of our interviews with Justice Mustaque, he showed us how his dashboard provides

easy access to detailed analysis (with features not presently available on CIS), including with visualisations of his roster and cases, that helps him make quick and data-based informed decisions on how to reduce pendency and organise his workload strategically. This is one of the most essential features of any analytical platform.

In our interview with Justice Nias, we found that relatively simple features to improve navigability encourage judges to use their dashboard. These include having the entire case files available in a single document rather than having parts of them in different folders, and features for annotating and marking the virtual case file.



A district court in Kochi where reforms similar to the High Court will be undertaken next.

Chapter - 6

Factors Contributing to Implementation of Reforms

While the Computer Committee has approached the issue of technology enabled reform with strategies in adoption and change management, there are a host of contributing supportive factors, specific to the ecosystem in Kerala, that aided these efforts.

People

The importance of the right people when implementing radical change in an organisation cannot be overstated. It is a natural human tendency for people in a system to try to maintain status quo with which they are comfortable and which aligns with their interests. People who have been in the system for a long time develop vested interests in perpetuating particular procedures and ways of working. Leaders, at various levels, play a crucial role in managing this kind of friction arising from change. In the context of the High Court, we saw that the leadership at different levels supported the digitisation efforts. The Computer Committee provided leadership at the top, but it was also the IT Directorate and the Registrars who served as change agents and role models for this change.

The Computer Committee has been relatively stable throughout this period. Justice Mustaque, Justice Nambiar, Justice Chaly and Justice Raja Vijayaraghavan have been on the committee throughout the period of the digitisation process. Their passion and commitment to the project were obvious whenever we met them. We found them open and willing to share their experiences right from our first visit. They also made a concerted effort to embrace technological changes as a signal to others. Many members of the staff told us that when Justice Vijayaraghavan was presiding over a paperless court, he used the screens to their full ability and did not

look at paper files. These judges continually sought feedback from advocates, clerks and court staff on the design of CMS. The IT Directorate was headed by Ms. Saleena VG Nair and now by Mr Gopakumar G and Mr. Joseph Rajesh, who are judicial officers with a keen understanding of the possibilities and limits of technology. In one of our first interactions with Mr. Joseph Rajesh he told us, “Ultimately, this system has to be beneficial for the litigant. Of course, it must help the judges and the staff, but there is no compromise on benefits for the litigants.”

Having an in-house IT team compared to NIC to implement the initiative has been a game changer. Mr. Ishaque KV, the Technical Project Manager, leads the team. The team has a software lead, two lead software developers, a system administrator and five programmers. Whenever we met Mr. Ishaque, he gave the impression of a man on a mission. Any conversation with him would be punctuated with multiple phone calls from irate advocates trying to use CMS. He also manages a WhatsApp group with advocates where they can give feedback on CMS and escalate their issues. Defying common expectations, the team's leader did not emerge from a prominent tech company or consultancy. He had previously worked in the Kerala Secretariat on various IT initiatives. He wanted to move to Kochi to be closer to his family. He told us that similar motivations prompted others in his team to take up this job. **This valuable experience of enlisting bright and dedicated individuals from the local community is a compelling reminder that achieving a successful digital transformation does not invariably demand an extensive budget or a staff with exorbitant salaries.**

Having an in-house team rather than NIC developing the ICT systems allowed the Computer Committee to benefit immensely from their proximity.

When stakeholders pointed out problems in the software the Committee was able to discuss these with the IT team, and the latter was able to suggest modifications. This kind of dynamic co-creating would have been very difficult with the NIC.

State Support

A project of this scale cannot be implemented without financial resources. Since the eCourts budgets (from the central reservoir) are earmarked for district courts, the High Court depends on the state government for financial resources. The Kerala state government has given the High Court Rs. 13.45 crores (till 2022-23) for hardware and to hire staff to implement its vision. The Kerala State IT Mission (KSITM) is the ICT nodal agency for e-governance and operates under the Department of Electronics and Information Technology in the State Government of Kerala.⁴⁶ It drives and facilitates various ICT programs in the state, and supports the High Court as well.

The Director of KSITM, an IAS Officer, is also the Nodal Officer for the IT-related activities of the High Court of Kerala.⁴⁷ KSITM was instrumental in providing free Wi-Fi service at the High Court, free server infrastructure, and the security auditing of various applications with the services of the Kerala Computer Emergency Response Team (CERT-K).⁴⁸ KSITM also engaged the Digital University of Kerala to undertake a detailed functional requirement study on the complete automation of justice delivery in the state judiciary.

The e-Committee, in its Vision Document noted that the eCourts project placed the burden of developing a vast set of interconnected systems and services involving several justice delivery institutions such as police, legal aid authorities etc. on only one actor - the judiciary.⁴⁹ In Kerala, the state government eases some of this burden by augmenting and streamlining

administrative functions involving interaction with courts. While not the focus of our study, we observed that state government advocates and pleaders relied heavily on the use of a litigation management tool - MISAGO. MISAGO is a tool developed by the NIC to manage communication and file transfer between state government departments and their advocates in the office of the Advocate General. However, it is not in use in all states, many of which still rely on the physical movement of files.⁵⁰ The state government, in its use of the tool as the primary form of communication between itself and the Advocate General's Office, has promoted an environment accepting of digital interventions. We did note, however, that the adoption of this system relies on some members of the staff in the office of the Advocate General working on MISAGO rather than the older advocates doing it themselves.

The state government also awards State eGovernance Awards every year as a form of encouragement and motivation. The Kerala High Court won this award in the category of e-Citizen Service Delivery in 2019-20 and 2020-21. This type of recognition and support by the state government creates an enabling environment for reforms in justice delivery.⁵¹

Consultative process and support from Advocates' Association

The process of implementing technological changes has been characterised by an iterative and consultative approach. These changes were not thrust upon stakeholders such as advocates, clerks, and litigants. The Computer Committee displayed a keen awareness of the potential drawbacks associated with unilaterally imposing changes without engaging in prior consultation. Since the introduction of the bail module, the Committee has taken proactive steps to solicit feedback from advocates and their own staff. This ongoing feedback loop has facilitated continuous refinement of the IT systems, enhancing their efficiency and user-friendliness. The incorporation of

a dashboard for advocate clerks and the adjustments made to the scrutiny process exemplify the tangible outcomes derived from the process of receiving and subsequently implementing feedback.

The helm of the Advocates Association, a powerful change agent in the advocate community, appeared to be supportive of the reform efforts of the Computer Committee. While they do raise objections to changes they believe may hamper the interest of advocates and their clients, they continue to engage with the Computer Committee and IT Directorate on their grievances.⁵²

“

The important thing is that we advocates are on board with reforms. When we raise complaints our purpose is not to stop the reform but rather to make the process smoother, we want to cooperate and not create unnecessary opposition. We have to accept that technology is the way forward.”

-

Advocate Naveen T, the secretary of the Advocates Association

This sentiment is not shared by all advocates we spoke with. Some older advocates we interviewed found the reforms, especially virtual scrutiny cumbersome and the changes difficult to navigate. Nonetheless, the representative of the Advocates Association mentioned that they hold training sessions of their own for advocates and collect

grievances of advocates that they then present periodically to the Computer Committee. Though they have a healthy scepticism for reforms (for example, the real impact of the multi-shift arrangement on time taken in the scrutiny process), they appeared hopeful and supportive. **Some representatives mentioned that they had visited other High Courts to see the eCourts project implemented there and concluded that the Kerala High Court offers them significant advantages. This builds a sense of pride in the achievements of what they feel is their own court and encourages them to cooperate with the registry rather than oppose change.**



A courtroom in the Kerala High Court

Chapter - 7

Challenges and Limitations

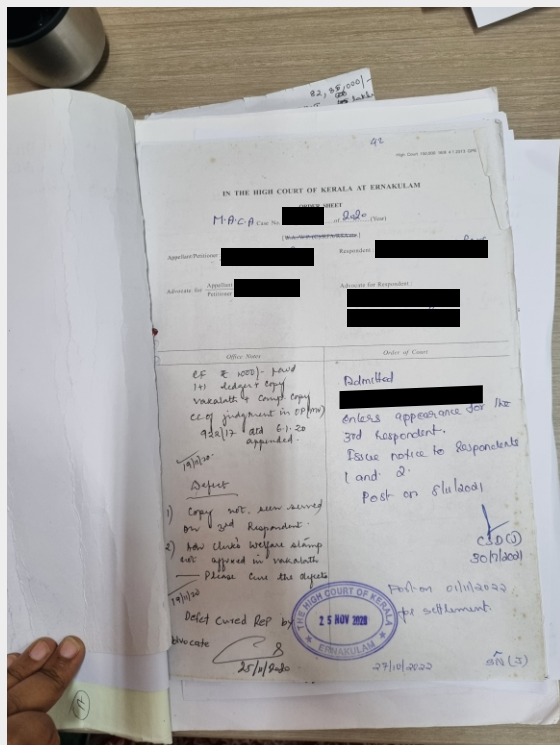
Digitisation of sections

When planning for the digitisation of archaic complex systems like courts, it is essential to separate the old and new cases. Transforming the system for old cases in the system is much more challenging than developing a system for the future inflow of cases. The Kerala High Court has done this separation. For new cases filed since 1 January 2023, there are two tracks— e-filed cases in paperless courts and e-filed cases in regular courts. For cases filed before this, there are two tracks— those in “paperless” courts and those in regular courts.

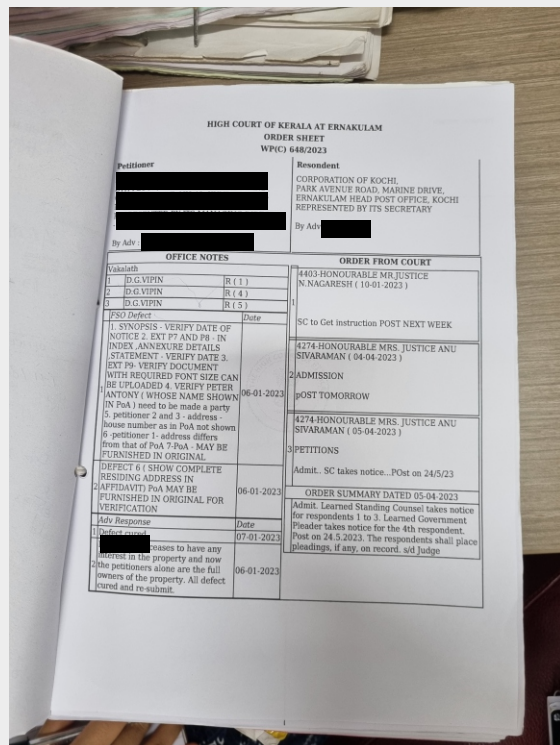
Since the case records of the older pending cases are not digitised, it is not possible to re-engineer the processes related to these cases for a digital platform. Although there is a process of scanning of old records underway in the court, this is for disposed cases.

Thus, older pending cases are in limbo between the old and new systems, even in paperless courts. The process re-engineering that was carried out for paperless courts cannot be replicated for older cases.

It is thus not surprising that the sections handling different case types still look like they did before the introduction of CMS. We met Lisa (name changed), a court officer in a section office, which was a large room with several steel shelves stacked with files. She was sitting at a desk and not using a computer when we met her. She told us that while she prepares cause lists online on the CMS, the backend process before that stage is still carried out through paper files. For regular courts, the physical files are kept in a section office where there is a posting book in which the dates are noted.



Physically maintained order sheet



Digital version of the same order sheet



A section office.

Two days before the assigned date, the files are sent to her to prepare the cause list. Lisa then verifies the date and lists the case accordingly. We thought that her work would be much easier if the order sheet were digital, but she told us that, on the contrary, that it would double her work. Some judges still insist on seeing the physical files, so the order sheet has to be updated in the physical files. If the same information has to be entered in the CMS, that is additional work for Lisa and her colleagues.

Although technology has the power to automate redundant steps and simplify processes, the reality of the transition phase between manual and technology-enabled processes often presents unexpected hurdles, potentially delaying the anticipated benefits. The experience of Lisa and her colleagues in that section serves as a compelling case in point, highlighting the intricacies involved in this shift.

The crux of the issue lies in the intricate process of digitising antiquated files—a backend endeavour that demands time, meticulousness, and resources. Until this digitisation process culminates, and until all stakeholders within the system—including judges—attain a level of comfort with perusing documents online, the seamless transition to an online framework remains elusive.

Court officers like Lisa who are responsible for managing judges' cases, face the dual challenge of adapting to the novel online modality while grappling with the coexistence of traditional manual methods.

Future of clerks and some court staff

Empathy is a core value in the Digital Court envisaged by the eCourts project, where “concerns of inclusion

and integration are addressed at the design stage as well as during adoption, particularly through harnessing a greater understanding of the experiences of those at the margins of the digital divide... ”⁵³ The digitisation process in the Kerala High Court has, expectedly, affected those at the margins of the digital divide. The profession that is most obviously affected is advocates' clerks. Anyone who has been to an Indian court is familiar with the sight of advocate clerks who are rushing between courtrooms carrying bundles or bags of documents. Advocates' clerks are not part of the formal legal system and may seem at the margins of the system, but they perform vital roles. They assist advocates with filing pleadings, administrative tasks and running errands. The more successful advocates with bigger practices have exclusive clerks but others share clerks with fellow advocates. Although they are not law graduates, most law clerks are knowledgeable about court procedures and help advocates navigate the court system.

The e-filing process has been the greatest disruptor in the lives of advocates' clerks. A recent hunger strike by the Kerala Advocate Clerks Association against the extension of mandatory e-filing to all courts in the state on the day of Onam, an important occasion marking abundance and harvest, cut a powerful image conveying the concerns of clerks.⁵⁴ Formerly, the entire filing process would be the domain of the clerk. The clerk would arrange the pleadings in the correct order, number the pages and ensure that all the required documents formed part of the pleadings. Then he (used deliberately because a vast proportion of advocates' clerks are men) would take the pleadings to court and file them, interacting with the FSO for the defect-curing process. He would ensure the court fee is paid and interact with the court staff for listing the case.

The clerks' work has significantly diminished with the introduction of e-filing, e-payment, and automatic listing.

When e-filing was first introduced in 2020, there was no dashboard for clerks. This is because the advocate is supposed to file pleadings on behalf of their client. In a non-digital system, the pleadings would be signed by the advocate, but usually, the clerk would handle the logistics of filing, including interfacing with the FSO. The introduction of e-filing and e-payment has upturned this informality. Now, the final submission has to be done by the advocate. Some advocates do not employ clerks at all and file pleadings themselves. They are familiar with computers and the tools in the CMS that number pages, bookmark sections etc., make the process simpler.

“

Before e-filing, I would file around 10 cases daily. Now, that number is 1-2 cases. I can no longer earn a livelihood from being a clerk.”

-
An advocate's clerk

The clerks demanded a dashboard, and the Computer Committee acceded. However, the clerks still cannot submit pleadings unless they enter an OTP provided to the advocate. Our conversation with clerks revealed a deep sense of discontent with the process of digitisation. Although the High Court has provided the Kerala Advocates Clerks Association with computers and arranged training for them, the reality is that for several clerks above 50 years, it is challenging for them to upskill themselves. Some younger ones have learnt to use computers or have tied up with desk top publishing (DTP) operators. One of the reasons the High Court still asks for physical copies of pleadings to be submitted after e-filing is to ensure that the clerks are not made entirely redundant. The Computer Committee also told the clerks association that if any clerk had lost his livelihood due to e-filing, he could be accommodated in the Digitisation Section for scanning documents.

Similar to the fate of advocates' clerks, there are some court staff whose jobs will become redundant. For example, people in data entry jobs will soon not be needed. Once the listing sections are digitised, the number of staff there will decrease. The most obvious example is the peon who carries documents between sections, a job that digital file transfer will make redundant.

Procedural Justice and legal foundation for process re-engineering

From our interviews with the IT Directorate, the reforms discussed have been sanctioned under the e-Filing Rules, Electronic Video Linkage Rules for Courts (Kerala), 2021, and related Practice Directions. While this may be sufficient for the level of reforms

undertaken so far, limited as they are to the High Court, progress on digitisation and process re-engineering need legal foundations in the form of revised high court rules and changes to the Civil Procedure Code 1908 and the Criminal Procedure Code 1973. Mohapatra and Shah have highlighted the possibility of compromised safeguards for litigants if the relevant rules and their purpose are not re-examined while introducing digital processes.⁵⁵ A detailed examination of the legal foundations for the bail module was beyond the scope of this case study. However, for an end-to-end digitized court process work-flow, enabling modifications to legal provisions are required to ensure at least the same standard of procedural justice offered by offline processes.



A corridor outside a "paperless" courtroom

Insights and Looking Ahead

The Kerala High Court has made significant strides towards the vision of the eCourts project. However, there are aspects of the vision that remain unfulfilled.

The Vision Document states that “Generating data by design and regularly reviewing data about the performance of the system will enable the ongoing user centric evolution of the platform. Leveraging analytics to identify new features and capabilities can also improve its user-centricity and effectiveness. Where appropriate, independent research partners can help with research on pilot projects, particularly with regard to supplying technical expertise and developing and evaluating performance metrics.”⁵⁶ CMS collects data by design through the e-filing process, but it is still not transparent to the extent that the Vision Document envisages. **Transparent impact analysis of all progress undertaken, crucial to a comprehensive understanding of these reforms, is difficult without accurate and accessible data.** The Vision Document characterises digital infrastructure in this nature as a “public good” by identifying the focus of Phase III as creating capabilities “in contrast to services or solutions that can facilitate the creation of an infinite number of additional services / solutions”.⁵⁷ This involves “curating the right environment” by providing APIs and standards “for solutions to emerge rapidly from the ecosystem of public and private actors”⁵⁸

The CMS is still at the stage of being an efficient and effective ERP system for the Kerala High Court but does not create digital public infrastructure/goods.⁵⁹ It does not provide APIs or provide bulk data to enable the creation of new tools and applications.

Making such data available, with the necessary privacy guardrails in place, is the next frontier for the Kerala High Court. Such a step will encourage better citizen engagement and innovation.

In case management, intelligent scheduling of hearings and not just automatic scheduling should be the next step for the Kerala High Court. The Vision Document alludes to such scheduling by emphasising the importance of co-ordinating the availability and schedules of different users: judges, advocates and litigants, for the court administrative process.⁶⁰ Leveraging ICT systems to create infrastructure that can optimise and coordinate the time of these stakeholders in the justice system can unlock significant capacities for justice administration and bring greater overall efficiency to the system. Over time, this will also increase the reliability of the system by enabling all actors to manage their time better. Such a scheduling system must intelligently recommend (and not decide) appropriate schedules by using algorithms. Such tools can factor in variables such as the schedules of judges, advocates (including the requirement of their presence in other courts), witnesses, existing caseload, the type of case, nature of hearings, and data from earlier cases to evolve and become more intelligent overtime.

Nonetheless, the reforms in the Kerala High Court are a powerful illustration of effective decentralised policy implementation.

The creation of CMS and the dashboard represent a movement towards a platform approach first expounded by Tim O'Reilly in his seminal essay 'Government as a Platform' in which the government is stripped down to its core, rediscovered and reimaged as if for the first time. Instead of trying to build a comprehensive system all at once, such a system does not specify all of the outcomes beforehand. It evolves these outcomes through interactions between government and its citizens, as a service provider enabling its user community.⁶¹ The High Court has successfully channelled this approach in its reformative efforts.

The eCommittee characterised the diversity in practices and procedures across high courts as a challenge in the adoption of uniform ICT solutions and recognised that technology “needs to account for diversity in administrative and legal processes” but it “must be built over a capacity to unify for the success of a nationwide project such as eCourts”.⁶² The Vision Document recognised that “[g]iven the diversity and evolving needs of users of the judicial system, it is critical to embrace a design that enables a high level of decentralised improvements, configuration and extensions by different courts and other users.”⁶³

The development and deployment of CIS under Phases I and II of the eCourts project is a top-down approach to achieve this uniformity. While CIS allows peripheral changes, it is not enough to accommodate the individual practices and ambitions of each high court.

Further, such an approach does not align with the principle of independence of each high court having complete control over its own administrative pro-

cesses – a “strategic autonomy” that the Vision Document recognises.⁶⁴ The eCommittee itself recognised that in the design of monolithic systems like CIS, “the process of adapting and revising their design as per evolving needs of users was expensive and difficult to do without disrupting existing services.”

However, in the high court of a smaller state like Kerala, constant revision of features based on user feedback is feasible and allows for the required testing of solutions before deployment in larger jurisdictions.

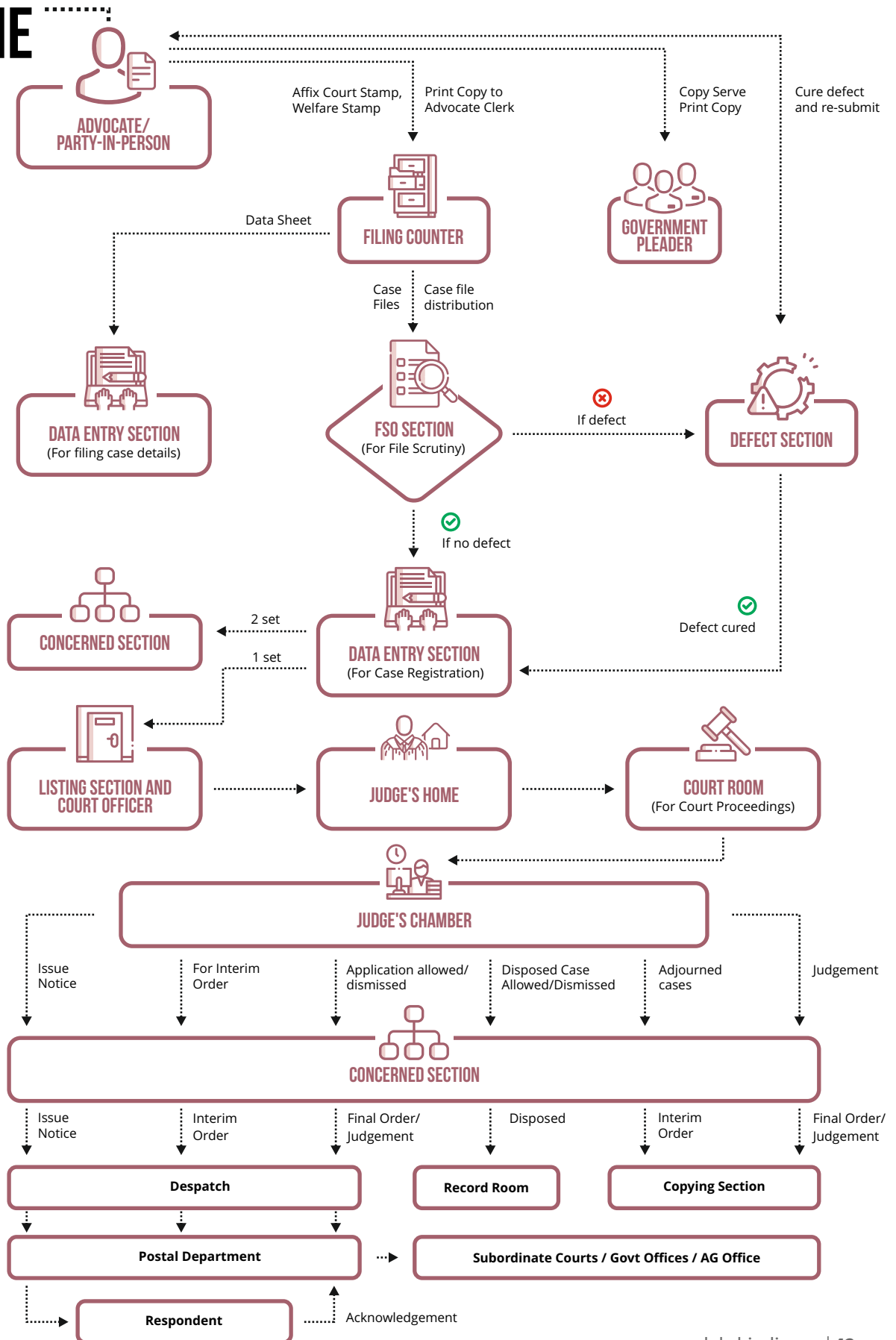
The Kerala model is a strong indication that a bottom-up approach toward digital courts and technology enabled case management could be very effective, popularising the features and systems developed by individual high courts like the CMS by the Kerala High Court, parts of which can be adopted by other high courts on the basis of their needs, leading to a common backbone in the long term.



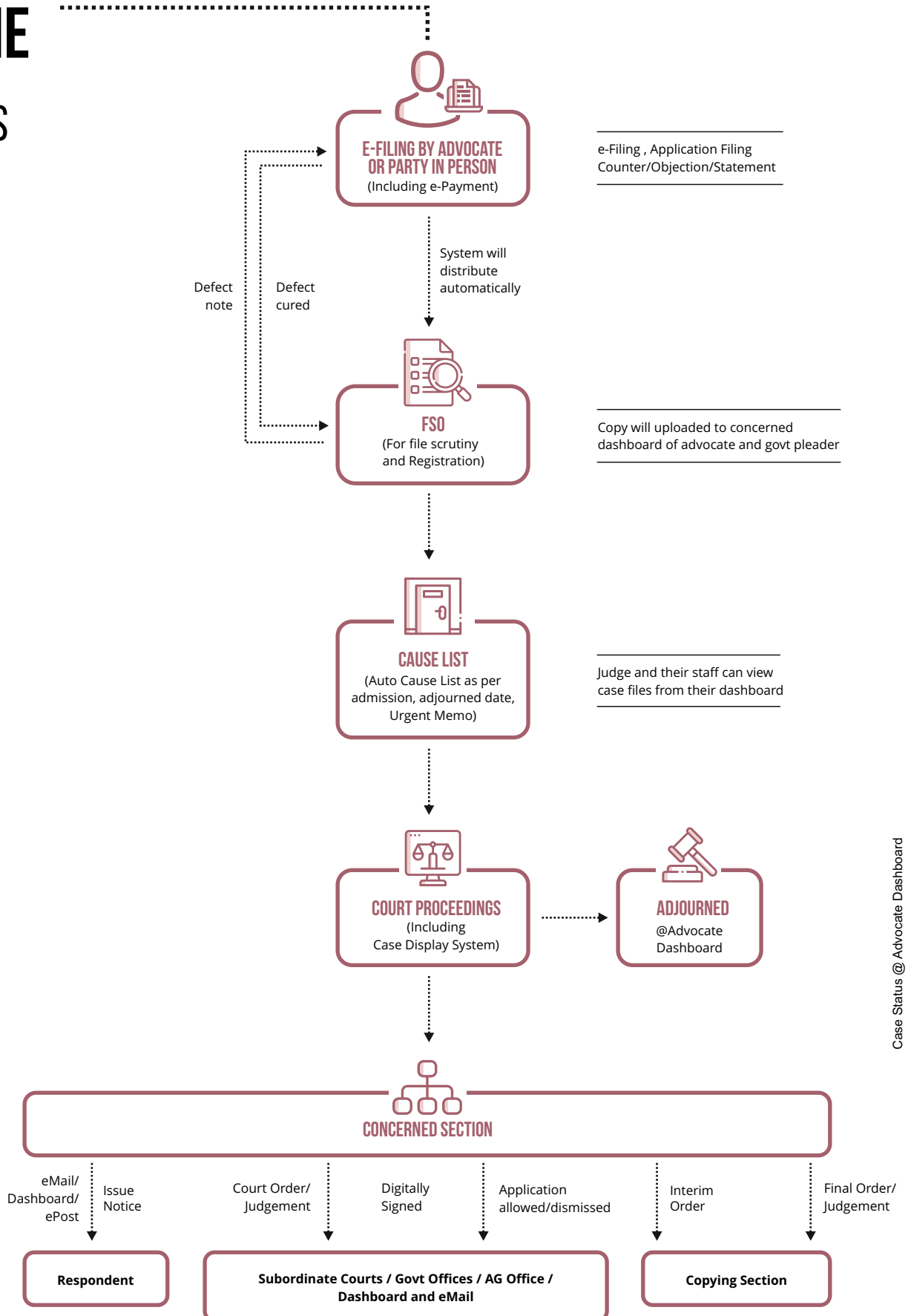
The registry at work

Annexure I - A mapping of offline and online case processes

OFFLINE CASE PROCESS



ONLINE FILE PROCESS



Annexure II - Mapping Reforms to select points in the Vision Document

In this annexure, we map the Kerala High Court's reforms studied with the relevant aspirations of the Vision Document of the Supreme Court eCommittee for Phase III of the eCourts Project. The mapping is limited to the reforms observed by the researchers, ie, eFiling, virtual scrutiny and paperless courts. This does not include all the key points of the Vision Document but only identifies those that have been advanced by the reforms observed by the researchers. Given the limited scope of our study, this mapping is indicative and is not a performance measure.

Select points in the Vision Document that the Kerala High Court reforms advance

Corresponding developments in the Kerala High Court

Learnings from Phase I & II and opportunities for action (pp. 21-26)

“Whole of system” approach:

Design the technology and processes for the ease and access of multiple ecosystem actors simultaneously: litigants, lawyers, registry or civil society.

CMS has enabled multiple parties to view and work on files simultaneously. At the eFiling stage, filing parties and scrutiny officers can view and work on the file simultaneously. Later, during hearings, the case file can be viewed by the judge, lawyers and court staff and worked on simultaneously in the 'paperless courts.'

However, as of now the sections and the process of listing (in non-paperless courts) are still not digitised.

“Whole of system” approach:

Enable and support participation from different ecosystem actors for creation and adoption of services; Design a system that enables different parts of the justice delivery system (legal aid authorities, prisons, police etc.) to collaborate and provide seamless delivery of justice to citizens by reducing touchpoints.

Apart from the co-creation and adoption mentioned above, the linking of CMS to MISAGO (the litigation management tool used by the office of the Advocate General) helps widen the range of seamless digitisation of processes across state government parties and the High Court. In addition, the 'bail module' demonstrates the possibilities of interoperability with wide-ranging ecosystem actors such as prisons and police.

Currently the CMS does not allow API access to stakeholders to configure and customise solutions as relevant to them. The ecosystem would benefit if the CMS was designed as a Digital Public Infrastructure that would allow such possibilities.

“Whole of system” approach:

Adopt an architecture that is evolutionary and configurable by design which requires limited digital infrastructure (in contrast to monolithic)

CMS is an example of evolutionary digital infrastructure, many parts of which (such as the eFiling portal, virtual scrutiny, dashboards etc) have been developed through feedback-based iterative versions.

Strengthen feedback loops:

there is opportunity to include validation, authentication, or auditing processes for the data entered into the system coupled with varied periodicity of review mechanisms. This will improve data fidelity on the system.

Data entry in eFiling as done by the applicant is automated to the extent possible, validated at scrutiny stage and automatically populated for further processes (listing, publishing in eCourts website etc), improving data fidelity.

Strengthen feedback loops:

Similarly, mechanisms can be included for court staff and other users to share challenges and feedback to improve user design and increase adoption.

The IT Team is constantly evolving its products through immediate feedback loops, including through WhatsApp groups. This has resulted in increased adoption and improved user design. An ongoing example is machine scrutiny of bail applications.

Many judges were burdened with

... additional responsibilities ... include dedicated experts in process-reengineering, technology, product design and communication.

The plans of the Computer Committee (consisting of judges) are ably informed and implemented by the IT Directorate (consisting of key members passionate about technology-enabled transformation), supported by an effective recruitment strategy for the IT Team.

Benefits for Stakeholders (pp 35-38)

For citizens:

Better scheduling mechanisms, online digital filings, and different mediums of hearings will provide certainty of events, increase access to courts from anywhere, and advance access to timely justice.

While the effect of automatic scheduling and data driven scheduling decisions in the High Court are yet to be analysed through publicly available data, strides have been made to list cases automatically. All fresh matters receive a first hearing within two days of filing and specifying the dates for next hearings is the norm. This ensures that matters are heard with some regularity - the researchers are aware that this is not the

For lawyers:

Better scheduling will enable better time utilisation.

case in all high courts, with some courts requiring over a week to conduct a first hearing for fresh matters.

However, as mentioned above since the sections and the process of listing (for non-paperless courts) is not yet digitised there is scope for further reform in listing processes.

For citizens:

E-filings and virtual hearings will reduce legal and travel costs, thereby reducing the costs of accessing justice.

The bail module claims to reduce travel times for official witnesses. From our interviews with government pleaders, both for the state and central government, we gathered that e-filing has removed the need for physical posting of files. At the state government level, MISAGO has made the communication between government parties and the advocate general even more seamless and does not depend on email.

For citizens:

Proactive alerts and information, live streaming of cases, and open data that would constantly evolve and better the system, will increase transparency and trust in the system.

The advocate and litigant dashboard provide detailed information regarding the status of cases. The virtual scrutiny allows for constant updates to the advocate, including when the FSO started and completed the scrutiny.

However, the availability of open data to the public, researchers and technologists through APIs is yet to be a reality.

For citizens:

Real-time assistance through eSeva Kendras and helpdesks will empower users to utilise available services.

The eSeva Kendra at the High Court is fully functional and prioritises adoption of technology along with service delivery. The researchers observed several litigants filing cases themselves at the eSeva Kendra.

For lawyers:

Seamless filings, service of summons / prior notice to the opposite party and hearings from their cities or homes will bring time and cost efficiencies to their practice.

eFiling through CMS has a feature for cases filed against government parties, where the counsel of the relevant government party is automatically notified when a case is filed without the petitioner having to notify the government party concerned.

From our interviews with advocates, we gathered that they are able to conduct their practice across multiple fora due to the advantages of video conference hearings.

For lawyers:

Make available the same records of files as the courts since the digital case file available with the lawyer / litigant will be identical to the court record of the case. Further, changes being in real time, will reduce the need for inspection or regular updation of case files by the lawyer / party. This will also avoid issues arising from loss of case records or the need to reconstruct case files.

eFiling through CMS builds a virtual case file which allows for updation and change as the case progresses. This file is visible to advocates of all parties, judges and court staff on each of their dashboards. The efile is the original record of the file.

For lawyers:

Real-time assistance to facilitate adoption of digitally enabled processes.

The IT team is available round the clock for advocates through their WhatsApp group. They also organise assistance for court staff when required

For court staff:

Dedicated real-time assistance will reduce the burden on court staff in correcting errors and providing guidance on processes.

For court staff:

Automating processes for scrutiny and review of filed documents. Digital filings will optimise time, minimise errors and increase effectiveness of the Registry. Reduce dependence on the physical registry.

Automatic scrutiny of bail applications is underway.

For court staff:

Smart templates for orders and the design of case management systems being built on top of machine-readable files can reduce workload of court staff by minimising the need to input data.

Efforts for creating smart templates for orders are underway. There is minimal replication of data entry as data once entered is populated in the stages that follow.

For judges:

Better data visibility on types and classes of cases that create most caseloads and how they proceed will enable more targeted intervention and resource allocation by the judiciary.

Sophisticated features on the judges' dashboard enable data-driven case management and administration by judges with additional features for the Chief Justice based on their unique requirements (See section on judges' dashboard)

For judges:

Seamless integration of the judicial system with that of the police, prisons, prosecution, etc., which will improve the speed of information sharing and more efficient processes.

The linking of CMS to MISAGO (the litigation management tool used by the office of the Advocate General) helps widen the range of seamless digitisation of processes across state government parties and the High Court. In addition, the 'bail module' demonstrates the possibilities of interoperability with ecosystem actors such as prisons and police.

For judges:

Minimising paper-based processes will bring a significant reduction to the environmental costs of the judicial and legal system. There will be increased security, and minimal time and costs, of moving physical documents from one court to another.

“Paperless” courts, e-filing and virtual case files have all reduced paper use. Apart from working on virtual files, technology-enabled process re-engineering has removed the need for physical movement of files in paperless courts.

Towards Digital Courts (pp. 39-42)**Process Re-engineering:**

This approach emphasises elimination of redundant steps in pursuit of better performance on predetermined measures of performance.

Eliminating repetitive work for court staff to enter data in the manual registers, in addition to the digital platform.

The bail module has resulted in process re-engineering of notice and communication channels between different actors in the ecosystem. Automatic bail scrutiny has re-engineered the process of scrutiny.

eFiling combines payment of court fees with filing along with authentication of data entered, templatisation of data entry and digital notice to government parties - all of which form process re-engineering.

Administrative tasks in file processing after hearing and automatic listing is re-engineered in “paperless” courts. For

Scheduling pre-hearing conferences to fix the time schedule in advance for carrying out the hearing
Integrating payment of process fee with the court fee, at the time of filing and enabling service of notice through digital means to reduce time taken.

example, from our interviews, we gathered that a release of an interim order required up to five different approvals within the court while a final order required only three. This has now been changed and simplified.

Online certified copy of cases has further simplified the process.

Key Goals for Phase III (pp. 55-67)

Make documents machine readable and secure

eFiling in the High Court ensures that all uploaded files are machine-readable. Orders are now signed digitally. The IT team is working on templatising applications and has made some headway in templatising bail applications through the bail module.

Intelligent Scheduling

While the effect of automatic scheduling and data-driven scheduling decisions in the High Court are yet to be analysed through publicly available data, strides have been made to list cases automatically in paperless courts.

Interoperable Criminal Justice System

The bail module provides a prototype of how ICJS can work in a localised environment.

Digital Case Management Systems

eFiling through CMS builds a virtual case file which allows for updation and change as the case progresses. This file is visible to advocates of all parties, judges and court staff on each of their dashboards. The efile is the original record of the file. The judges dashboard provides easy access to detailed analysis (with features not presently available on CIS), including with visualisations of roster and cases, that helps judges make quick and data-based informed decisions on how to reduce pendency and organise workload strategically.

eFiling

eFiling as a foundational step in digitising the entire life cycle of the case has been implemented for all case types in the High Court.

Courtroom Live Audio-visual Streaming System

Hearings through VC are possible in all courts and are available as an option for the advocate at the time of filing itself.

eSewa Kendra

The eSewa Kendra at the High Court is fully functional and prioritises adoption of technology along with service delivery. The researchers observed several litigants filing cases themselves at the eSewa Kendra.

Help desk for digital assistance

Members of the IT Team are accessible through WhatsApp groups and on call for advocates, court staff and judges.

Annexure III - Additional features of CMS over CIS

CMS	Features	CIS V3.0
✔	Role-based profiles	✘
✔	Filing of IA along with main petition	✘
✔	Digital service to other parties	✘
✔	Metadata pulled by the system to create docket, synopsis etc.	✘
✔	E-payment gateway for collection of court fee, welfare fund fees with real-time settlement with the Treasury	✘
✔	Online scrutiny of pleadings	✘
✔	System generated index, docket and bookmarks	✘
✔	Auto caveat search and tagging	✘
✔	Voice to text transcription for judges	✘
✔	Drafting and publishing of interim files real-time	✘
✔	Machine delivery of certified copy	✘
✔	Video conferencing option while filing	✘

End notes

¹ Navya Benny and Sheryl Sebastian. 2023. 'Revolutionizing Justice- Exploring Kerala High Court's Innovative, Paperless eCourt System For More Accessible Justice', LiveLaw, 3 March, available online at <https://www.livelaw.in/top-stories/kerala-high-court-eCourt-project-paperless-court-visionary-222988> (accessed on 3 September 2023); <https://www.livelaw.in/top-stories/kerala-high-court-eCourt-project-paperless-court-stakeholders-incentives-part-2-223172>; The Print. 2022. 'Three paperless courts in Kerala High Court from Aug 1', The Print, 31 July, available online at <https://theprint.in/india/three-paperless-courts-in-kerala-high-court-from-aug-1-lawyers-say-will-wait-and-watch/1063098/> (accessed on 3 September, 2023).

²To view the online pass system, visit <https://ecourts.kerala.gov.in/digicourt/Gatepass> (accessed on 3 September 2023).

³to view all the Computer Committee newsletters, visit https://hckerala.gov.in/ecommittee_newsletter.php (accessed on 3 September 2023)

⁴ This sometimes happens in a nonlinear fashion. For example, efforts are ongoing to digitise filing, scrutiny and orders in all case types while efforts on digitising listing are limited to certain case types and courtrooms.

⁵Orders dated 30 March 2020, 18 May 2020, 26 May 2020 in The Court on its own Motion: Suo Motu Proceedings- COVID-19 Pandemic WP(C) 9400/2020 (S).

⁶ The Computer Committee in Kerala High Court consists of five judges of the High Court. Under the Policy and Action Plan of Phase II of the eCourts Project, each High Court has set up a Computer Committee to “recommend various policy measures, administrative restructuring essential for ICT implementation in consultation with the (Supreme Court) E-Committee.” See NPAC, p.27.

⁷High Court of Kerala. 2021. Computer Committee Newsletter First Edition, p.10.

⁸ Vision Document, p.49.

⁹See ICJS, available online at <https://ecommitteesci.gov.in/icjs/> (accessed on 3 September 2023).

¹⁰ Kerala High Court Notice A7- 127/2020 dated 10 June 2020

¹¹High Court of Kerala. 2021. Computer Committee Newsletter First Edition, p. 8.

¹² This is a limitation recognised by the Supreme Court eCommittee in the Vision Document as a “challenge” in the adoption of the eCourts project (p.19, Vision Document). Researchers of this case study have found this practice in the High Court of Karnataka and Patna. In the High Court of Orissa, e-Filing exists as an option and courtrooms provide judges with access to a computer system onto which a virtual case file is loaded. However, the physical version of the e-filed document, along with other documents such as the response, further applications, order sheet etc are all physically scanned and saved together as a virtual case file. This case file is then made available on the computer in the courtroom. Instead, the e-filed version itself should be uploaded onto the court computers without printing and scanning. For this, the e-Filed document itself should be integration friendly and every component of the case file (not only the petition/application) should be created first in virtual form.

¹³ Vision Document, p. 58.

¹⁴ Vision Document, p. 58.

¹⁵ A caveat is a petition filed by a person before a court asking it not to take any action against the person without giving them notice.

¹⁶High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition, p.18.

¹⁷High Court of Kerala. 2022. Computer Committee Newsletter Fourth Edition p 7.

¹⁸High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition, p.15.

¹⁹High Court of Kerala. Notice No. A7- 80978/2021 dated 03.08.2023, available online at https://hckerala.gov.in/download_file.php (accessed on 10 August 2023).

²⁰ High Court of Kerala. Notice No. HCKL/5621/2023-A7, dated 10-07-2023, available online at https://hckerala.gov.in/download_file.php (accessed on 20 July 2023).

²¹ Navya Benny. 2023. 'In A First, Kerala High Court Set To Introduce Machine Scrutiny Of Bail Applications', LiveLaw, 7 July, available online at <https://www.livelaw.in/high-court/kerala-high-court/kerala-high-court-machine-scrutiny-bail-applications-defects-232142?infinitemscroll=1> (accessed on 3 July 2023); The Hindu. 2023. 'Machine scrutiny of bail pleas to be introduced in Kerala High Court', The Hindu, 7 July, available online at <https://www.thehindu.com/news/cities/Kochi/machine-scrutiny-of-bail-pleas-to-be-introduced-in-kerala-high-court/article67053759.ece> (accessed on 3 September 2023).

²² Vision Document, p 52 - "Instead of spending upfront time to build a solution incorporating all value added features, parts of which may be obsolete or irrelevant by roll-out, a platform should be built incrementally. This can be done by developing the most minimum viable products to which additional features can be added as understanding of user behaviour improves and / or new use cases emerge. Such an iterative and incremental approach enables and encourages rapid and flexible response to change, of all kinds."

²³ Arjun Raghunath. 2022. 'As Kerala High Court Goes Paperless, Advocate Clerks Fear Becoming Jobless'. Deccan Herald, 4 January. Available online at <https://www.deccanherald.com/india/as-kerala-high-court-goes-paperless-advocate-clerks-fear-becoming-jobless-1067947.html> (accessed on 10 July 2023).

²⁴ The Print. 2022. 'Three paperless courts in Kerala High Court from Aug 1', The Print, 31 July, available online at <https://theprint.in/india/three-paperless-courts-in-kerala-high-court-from-aug-1-lawyers-say-will-wait-and-watch/1063098/> (accessed on 3 September, 2023); Giti Pratap. 2022. 'Kerala High Court introduces paperless courts for hearing bail, tax matters with effect from August 1', Bar & Bench, 21 July, available online at <https://www.barandbench.com/news/breaking-kerala-high-court-introduces-paperless-courts-for-hearing-bail-tax-matters-with-effect-from-august-1> (accessed on 3 September 2023).

²⁵ The division bench of Hon'ble Justices SV Bhatti and Basant Balaji (Court 6D), the single benches of Hon'ble Justice Gopinath P (Court 1A) and Hon'ble Justice Viju Abraham (Court 1C). High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition

²⁶ Hon'ble Justice Bechu Kurian Thomas (Court 4 D) and Hon'ble Justice K. Babu (Court 5D) who are dealing with all bail applications that are considered on other benches of the High Court are also in paperless mode. In addition to that, the Division Bench of the Hon'ble Mr. Justice A.K Jayasankaran Nambiar and the Hon'ble Mr. Justice Mohammed Nias C.P (Court 3B) started functioning as a paperless court w.e.f 19.09.2022. High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition.

²⁷ For example writs, first appeals etc. They do not always match with the case types that determine the roster or judges workload. These are only to mark which physical area in the court complex the files of active cases should be kept.

²⁸ An urgent memo is a request by an advocate for a matter to be listed before it was planned to be listed. In many cases, the matter may not be listed for hearing at all in which case advocates file an urgent memo to get a date for hearing. This memo is approved by the judge who would hear the case if it was listed. Once approved, the memo is sent to the section office.

²⁹ For example, in a hearing where it is found that a crucial document required for the hearing is not produced by either party, the court officer notes in the case file that the matter can next be heard when that document is produced or filed by the relevant party. In case of adjournments, the court officer notes which party requested the adjournment.

³⁰ Vision Document, p. 43

³¹ Typically, judges dictate these orders which are typed by the assistants and uploaded online by the Court Officer.

³² DAKSH. 2019. Whitepaper series on Next Generation Justice Platform, Paper 1: The Vision. Bengaluru: DAKSH, p. 42

³³ High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition, p. 13.

³⁴ High Court of Kerala. 2021. Computer Committee Newsletter First Edition, p. 6

³⁵ Vision Document, p. 25 and p.83.

³⁶ Vision Document p. 106.

³⁷ Anil, Keerthi, Bar Assn members, MISAGO asst

³⁸ Vision Document, p.79.

³⁹ Lydia Suzanne Thomas. 2021. 'Kerala High Court Bar Expresses Concerns About E-Filing Rules; KHCAA Resolves To Abstain From E-Filing', Livelaw, 17 May, available online at <https://www.livelaw.in/news-updates/kerala-high-court-bar-expresses-concerns-about-e-filing-rules-174233> (accessed on 5 June 2023).

- ⁴⁰ Interview with woman peer educator in the bar
- ⁴¹ High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition.
- ⁴² Vision Document, p. 65.
- ⁴³ Sara Susan Jiji. 2023. 'Kerala Advocate Clerks Association go on hunger strike on Onam over e-filing mandate'. Bar and Bench, 30 August, available online at <https://www.barandbench.com/news/kerala-advocate-clerks-association-resort-hunger-strike-onam-high-court-judge-solidarity> (accessed on 3 September 2023).
- ⁴⁴ High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition, p. 35.
- ⁴⁵ High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition, p. 6.
- ⁴⁶ 'Who We Are', Kerala IT Mission, available online at <https://itmission.kerala.gov.in/who-we-are> (accessed on 3 July 2023).
- ⁴⁷ High Court of Kerala. 2021. Computer Committee Newsletter First Edition, p. 11.
- ⁴⁸ Special Acknowledgement, High Court of Kerala. 2021. Computer Committee Newsletter First Edition, Special Acknowledgement
- ⁴⁹ Vision Document, p. 22.
- ⁵⁰ The researchers are aware this is the case in West Bengal and Andhra Pradesh, for example.
- ⁵¹ High Court of Kerala. 2022. Computer Committee Newsletter Fifth Edition.
- ⁵² For example the Bar Association raised its voice against the introduction of e-filing in its initial form. See Lydia Suzanne Thomas. 2021. 'Kerala High Court Bar Expresses Concerns About E-Filing Rules; KHCAA Resolves To Abstain From E-Filing', Livelaw, 17 May, available online at <https://www.livelaw.in/news-updates/kerala-high-court-bar-expresses-concerns-about-e-filing-rules-174233> (accessed on 5 June 2023).
- ⁵³ Vision Document, p.32.
- ⁵⁴ Sara Susan Jiji. 2023. 'Kerala Advocate Clerks Association go on hunger strike on Onam over e-filing mandate'. Bar and Bench, 30 August, available online at <https://www.barandbench.com/news/kerala-advocate-clerks-association-resort-hunger-strike-onam-high-court-judge-solidarity> (accessed on 3 September 2023).
- ⁵⁵ Mugdha Mohapatra and Ajay Shah. 2023. 'Fairness and legislation for virtual courts', The Leap Blog, 28 September, available online at <https://blog.theleapjournal.org/2023/09/fairness-and-legislation-for-virtual.html?lctg=39897645#gsc.tab=0> (accessed on 30 September 2023).
- ⁵⁶ Vision Document, p. 50, 51.
- ⁵⁷ Vision Document, p.3.
- ⁵⁸ Vision Document, p. 24.
- ⁵⁹ Digital public goods are “open-source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable laws and best practices, do no harm, and help attain the SDGs.” Richard Pope, “Exploring Digital Public Goods”, Medium (24 May 2021), <<https://medium.com/digital-public-infrastructure/exploring-digital-public-goods-introduction-d33493cebdd>>
- ⁶⁰ Vision Document, p. 59.
- ⁶¹ Tim O'Reilly. 2011. 'Government as a Platform'. Innovations: Technology, Governance, Globalization, 6 (1): 15.
- ⁶² Vision Document, p. 19.
- ⁶³ Vision Document, p.44.
- ⁶⁴ Vision Document, p.82.
- ⁶⁵ Vision Document, p.22.



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