

# INNOVATIONS

Phase II of the eCourts Project

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### INNOVATIONS IN ECOURTS PROJECT PHASE II

### **Brief Introduction:**

While the eCourts Mission Mode Project is undoubtedly one the most successful projects in the country, its success can be attributed to three systemic and structural management strategies. The Project has achieved several milestones and these have been made possible through three management strategies.

Firstly, the entire Project has been conceptualized and implemented in Free and Open Source Software. This is perhaps the largest FOSS based project in the world and has resulted in an estimated saving of Rs. 340 crore to the Exchequer excluding huge recurrent cost of license fee and maintenance, simultaneously providing freedom to customise and use the system software.

Secondly, the core-periphery model has been utilized and implemented in the software development. The core is sacrosanct and is decided by the eCommittee and contains data that is available for policy and decision making at the national level – Supreme Court, Parliament and Central Government. Of course, the core data can be accessed and utilized for policy and decision making at the State level. The periphery modules are to be developed by each High Court and can be implemented through the available data in the core. Each High Court has full freedom to develop its periphery modules based on the High Court Rules, the Civil and Criminal Court Manuals. These periphery modules are intended for State level utilization – High Court and District Courts, State Legislature and State Government.

Thirdly, the eCourts Project has been focussed on being citizen-centric, keeping the litigant in mind. This focus has resulted in remarkable coordination and teamwork between hundreds of judicial officers (Trainers and Master Trainers) and court staff (District System Administrators and System Administrators). Appreciating the importance and significance of the eCourts Project for expeditious and affordable

justice delivery, the Department of Justice, National Informatics Centre and other Central Government institutions coordinated and cooperated with the expert eCommittee team to bring success to the Project. It is through this teamwork that important software and applications such as Case Information System, eFiling, ePayment, National Service and Tracking of Electronic Processes, Video Conferencing, Virtual Court, National Judicial Data Grid, a variety of mobile applications and several others have been successfully tried, tested and implemented.

The future continues to hold remarkable potential for development and growth. Available technology has been fully utilized in Phase II of the eCourts Project and several innovations made as the Project progressed. In Phase III of the eCourts Project, consolidation and growth using technological advancements are envisioned including (for example) migration to the cloud (tested and partly implemented already), big data mining and processing through block chain technology and artificial intelligence. The focus will remain affordable and expeditious justice delivery.

## 1. Use of Open Source Technology in eCourts Project

The eCourts project is built on the foundation of Open Source Technology. FOSS, without any licensing subscription charges, has been adopted for deploying ICT solutions in the Courts. Use of FOSS, has not only reduced the cost on purchase of system software but has also provided freedom to customize, modify and distribute the software to the courts. FOSS software technology stack customized by eCommittee and NIC (OTG) Chennai, is implemented in all the courts of the country. Ubuntu Server operating System is customized as per the requirements of the eCourts Project and developed as auto-installation product by NIC (OTG) Chennai. Ubuntu Desktop with all the necessary tools required by the courts staff and Judicial Officers was customized and distributed by the e-Committee

7,500 Servers, 1,45,000 Desktops are provided in 3000 District and Taluka Court Complexes across the Country. Around 19,000 Laptops are procured for Judicial Officers. National Data Centre houses NJDG and citizen centric applications, like ecourts.gov.in, NJDG using ELK, Mobile Apps, e-Filing, with more than 250 VMs of

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which 70 are used as database VMs and remaining as application and Elastic search VM.

### Open Source Technology Stack used in the Courts:

Software Category	Open Source Software used in eCourts	Equivalent Proprietary Software
Server Operating System	Ubuntu Linux	Microsoft Windows
Database	PostgreSQL	Oracle/SQL Server
PDF creator	MPDF Library	Adobe
Data Replication tool	Slony	
Mobile App Development	Apache Cordova	iOS for Apple Mobile Users
Desktop Operating System	Ubuntu Linux	Microsoft Windows
Office Automation	Libre Office	MS Office
Data Analytics	Elastic (ELK) stack	Power BI
Data Visualization	D3.js and Kibana	Tableau

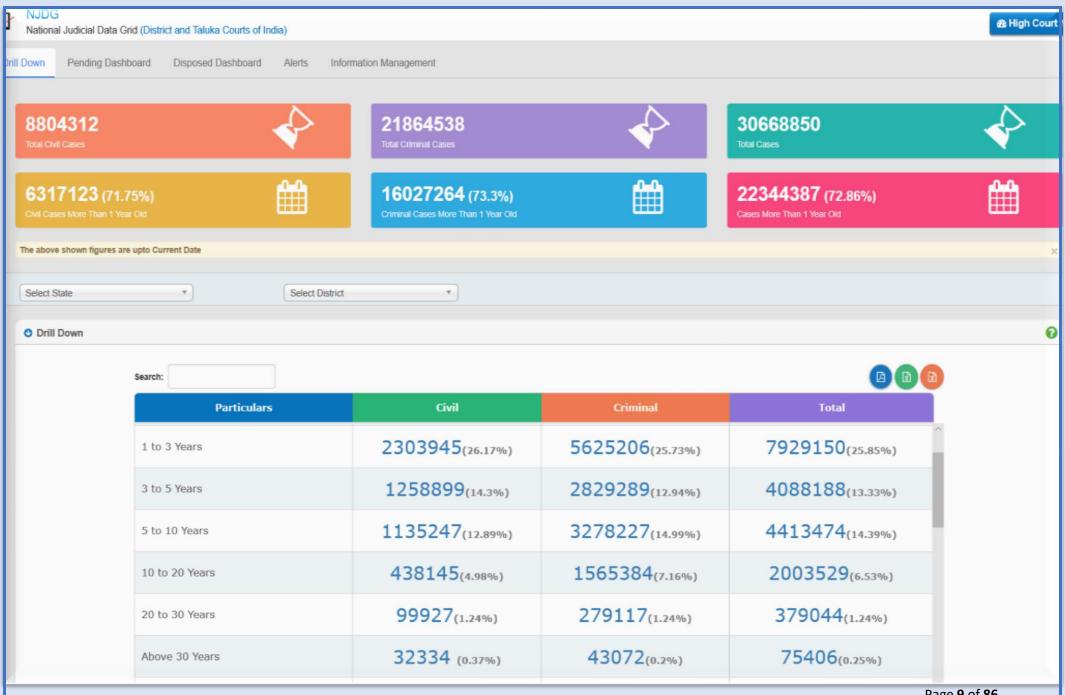
### 2. National Judicial Data Grid (District Courts)

(https://njdg.ecourts.gov.in)

The National Judicial Data Grid (NJDG) is a game changer as far as the eCourts Project is concerned. It's utility has been recognised by the World Bank in its Ease of Doing Business report of 2018. The World Bank recorded:

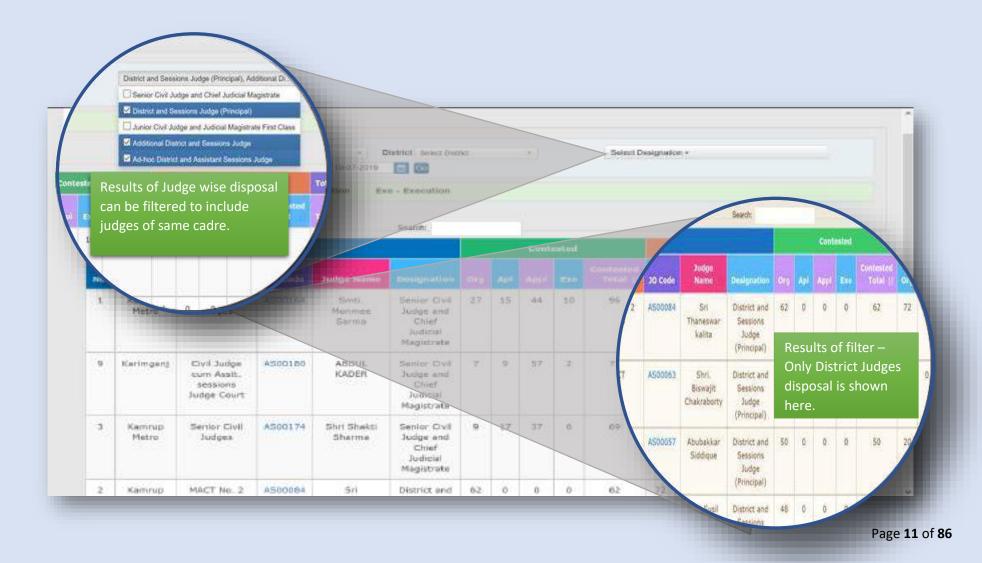
"India made enforcing contracts easier by introducing the National Judicial Data Grid, which makes it possible to generate case management reports on local courts."

The NJDG has a wealth of information and has data relating to cases from all over the country. In fact, there are about 10 crore orders and Judgments from the High Courts and District Courts. The most important feature of the NJDG is that the data is available on a near real-time basis. The NJDG has been utilised by researchers and academics for writing articles on the state of justice delivery in India.



- 1. The NJDG has introduced transparency and also accountability in the functioning of the courts particularly with regard to pending and disposed of cases. Today, the status of every case in the country can be tracked through the NJDG, including through a variety of attributes.
- 2. The wealth of data and information available on the NJDG can assist every judge including those who are directly involved in administration to take appropriate policy decisions for expediting justice delivery. It is a remarkable tool for management purposes.
- 3. The NJDG is providing enough data for the purposes of introducing big data mining and elastic search technology in the eCourts Project. Through the NJDG, a quantum leap can be taken in utilising technology for the benefit of justice delivery in the country.

4. The number of cases pending in each and every court in the country is available on the NJDG. It is therefore easy to find out if any judge is overworked or any judge is underutilized in terms of the number of cases pending in the court.



- 5. The age-wise pendency of cases is available and has been utilised to pass on this information to the High Courts. For example, cases for more than 30 years have been identified and in fact, there are more than 75,000 such cases. Therefore, the NJDG works as an effective administrative and organisational tool.
- 6. The stage at which each case is pending has been identified and made available on the NJDG. Lawyers and litigants as well as judges have full information about each case that they are concerned with.

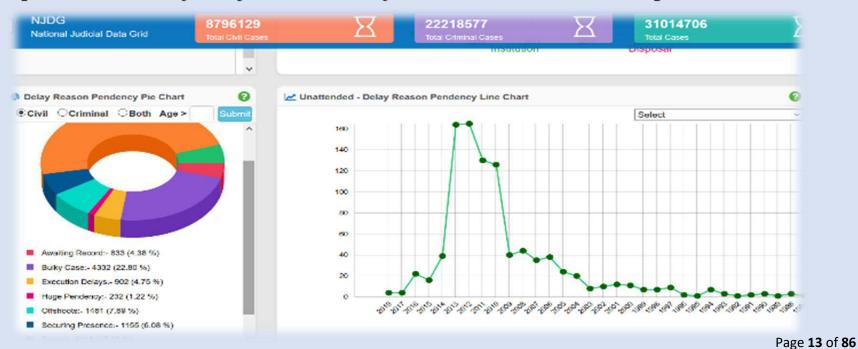




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- 7. The number of cases instituted and disposed of in a month and indeed during a specified period can be easily tracked through the NJDG. Case management is an essential feature for effective justice delivery and the NJDG assists in this process.
- 8. The NJDG can also assist in finding out the reasons for delay in disposal of cases.

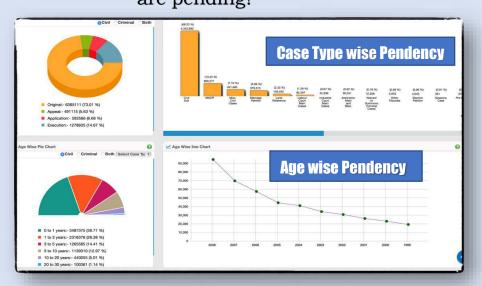
  This is therefore a very important tool for judges at all levels to ascertain the problem of delays in justice delivery and to take remedial steps



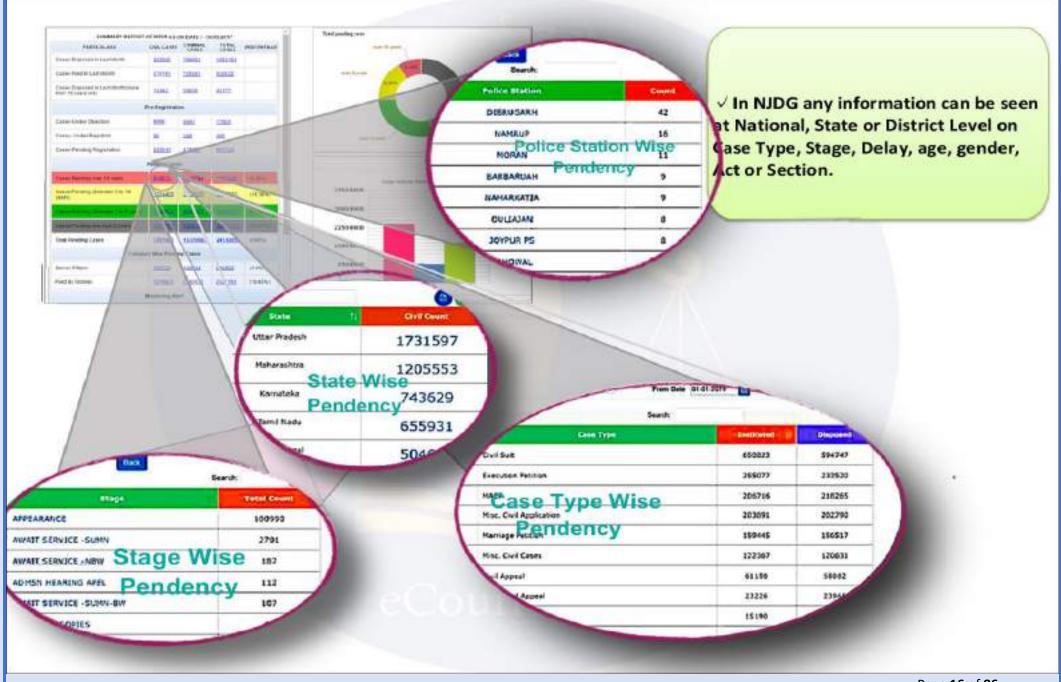
- 9. The NJDG is product of big process re-engineering exercise carried out by the eCommittee. In this process re-engineering exercise, Unification of local nomenclatures used across the country under National Types was done and such National Types were codified. As a result, data can be seen on NJDG under Case Types, Stages, Disposal types, Delay types etc. At the same time, elastic search data base is used for speed, effectiveness and efficiency. Therefore, new NJDG is combination of process re-engineering and upgraded technology.
- 10. In NJDG, due to National Codification exercise, it is possible to know how many Suits, Appeals, Motor Accident Claims, Land References etc. are pending in the country or State. Similarly, it is now possible to know how many Sessions Cases are pending in the country.
- 11. The NJDG has intranet-based access for management and administration. Using this facility High Courts have created management logins for Districts, officers in High Court Registry and Portfolio/Administrative Judges of High Courts, for Judicial Planning, Monitoring and remote administration.

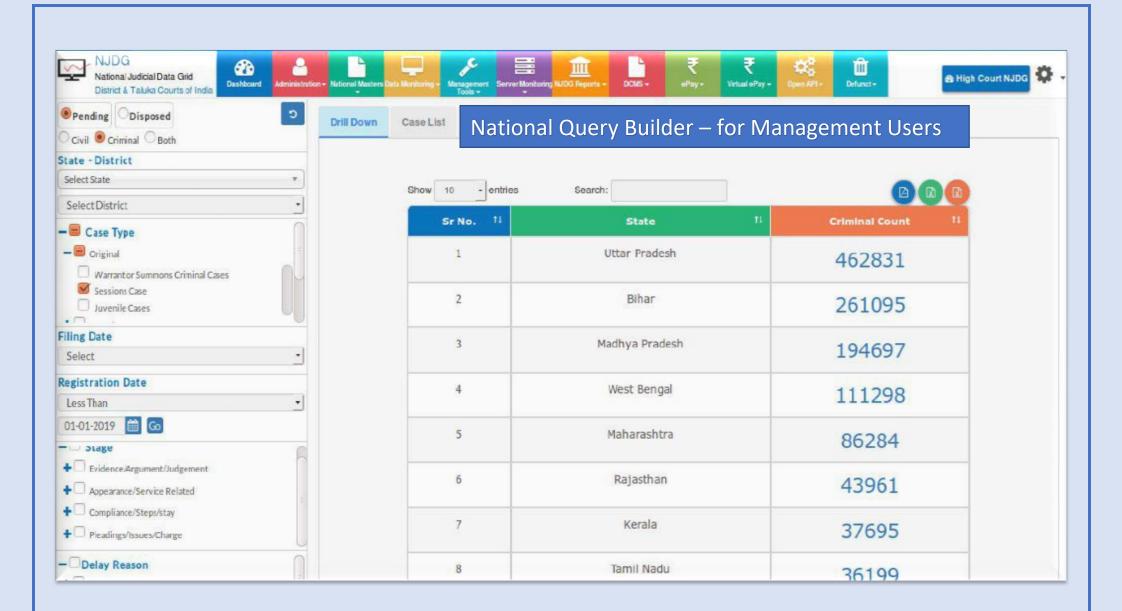
- 12. The NJDG has a very interesting feature called a query builder provided to management and administration users of NJDG. The advantage and benefit of a query builder is that count and list of cases can be generated by combining variety of parameters. Query builder can answer queries such as:.
- a. How many cases are pending with regard to compensation for motor accidents for a particular period?

b. How many sessions cases more than 17 years old and registered under Section 302 of IPC are pending?









### 3. National Judicial Data Grid (High Courts)

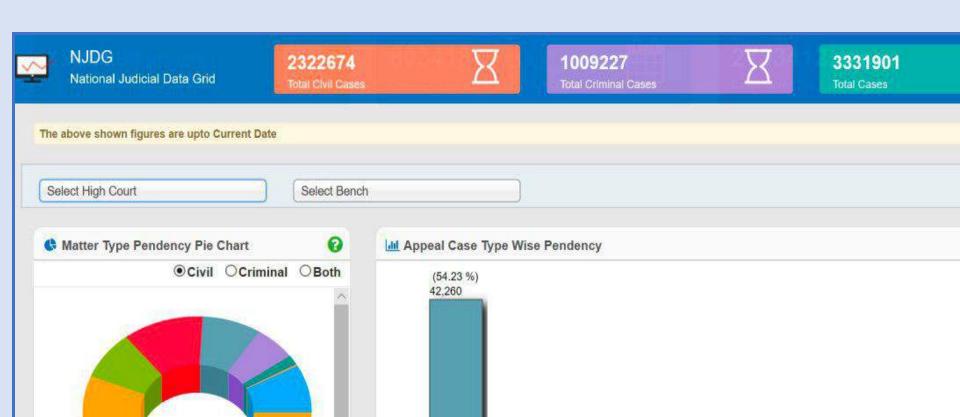
Uniformity of nomenclatures and Codification of Case Types was a necessary step for High Court NJDG. Since 21 High Courts migrated to CIS 1.0, the unification and codification became more essential to see the data through country perspective. This unification and codification are necessary to see data of cases of all migrated High Courts on national platform. At the same time, through this process of unification, tools will be given to query the data for each High Court to produce desired results. The more apt permutations and combinations of the query given, the better the results would be. The data can be seen through different parameters of Case Types, age, gender, subject category, disposal type etc. This uniformity is now complete. The data of the High Court can be seen on NJDG at par with District Courts. Majority of the High Courts have started entering National Codes and consequently, data can be seen on High Court NJDG.

It is now possible to identify 20 years old, 30 years old and 40 years old cases of all High Courts for particular case type. It is now possible to generate list of cases stayed by various High Courts in the country.

It is now possible to know how many second appeals are pending and what percentage of second appeals are more than 5 years old.

Total number of Writ Petitions, First Appeals, Revisions etc can be easily known through dashboard.



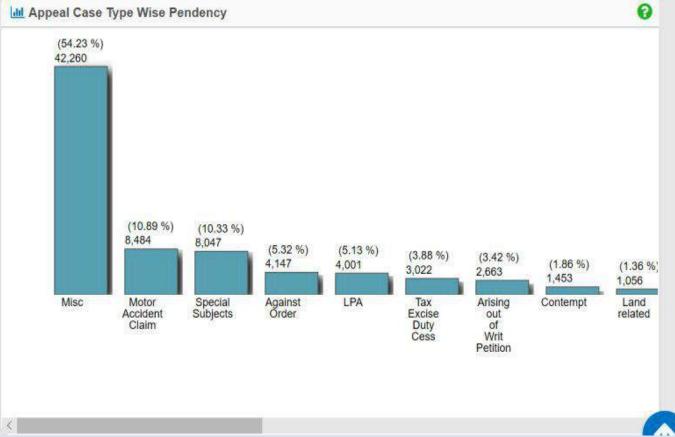


Writ Petition:- 524720 (56.17 %)

Second Appeal:- 76838 (8.22 %)
First Appeal:- 107288 (11.48 %)

Appeal:- 77928 (8.34 %)

Case/Petition:- 55236 (5.91 %)



×

## 4. Case Information System (District Courts)

Phase II of the eCourts Project began with a very serious disadvantage in that a large number of courts had prepared their own software making it difficult for any integration that could serve the interests of expedited justice delivery all over the country. The challenge was effectively met through the introduction of the Case Information System or CIS 1.0. This process took about two years but was successfully completed and commissioned with the valuable assistance of the National Informatics Centre (NIC). Over the years, the unified CIS has graduated from version 1.0 to version 3.1. This is now available in every District Court of the country. Similarly, version 1.0 has been made available to every High Court and 21 out of 25 High Courts have migrated their data to CIS version 1.0. This has made data analysis more rational and advantageous for justice delivery.



#### **Important Points**

- ✓ List of **2000 Central Acts & Rules** provided with National Codes.
- ✓ Offence and Section info of Punishment, bailable, Triable, compoundable all imp. Central Penal and Civil Statutes provided inbuilt in CIS 3.1.

  150 Civil/Criminal processes templates as per CPC & Cr.P.C
- ✓ Inbuilt **46 Judgment/orders** template
- ✓ **National Masters** with mapping facility provided
- ✓ Lok-Adalat, Remand, Process generations and ADR introduced as independent modules.
- 1. CIS product has been developed entirely on free open source system. This has saved an estimated Rs. 340 crores to the country as against the use of proprietary software. This does not include annual recurring expenses for licences, maintenance etc.
- 2. The development of software in Phase II of the eCourts Project is a two-stage process. The first stage is the development of the core which contains essential information pertaining to a case and cannot be modified. The second stage is the development of the periphery which is dependent upon the core. The periphery is

required to be developed locally by each High Court as per its own requirements. Many High Courts have developed such periphery software and are using it not only in the High Court but also in the District Courts.

- 3. An interesting feature of the CIS is that it is multilingual and enables the data entry operator to introduce the data in English and also in the local language used in the District Court. Currently 8 States are using bilingual features of CIS.
  - a. Hindi is used in Uttar Pradesh, Uttarakhand, Madhya Pradesh and Chattisgarh.
  - b. Marathi is used in Maharashtra.
  - c. Gujarati is used in Gujarat.
  - d. Kannada is used in Karnataka.
  - e. Tamil is used in the district and taluka courts of Tamilnadu.
- 4. CIS has been developed as product and it is designed keeping in mind that requirements may change for varied reasons and, therefore, suitable changes are need of the hour, for acceptability by all High Courts. Therefore, CIS is unique for each State yet it is one product across the country. CIS is flexible and can be modified without much difficulty and indeed on various occasions, it has been

suitably customised on account of difference in procedure, changes in nomenclature used locally, pattern of cause list followed and requirement of peripheral software, such as for preparing certified copies, accounts etc.

- 5. Every establishment in the country has unique Establishment Code.
- 6. Every case has unique CNR Number that facilitates to locate the case by QR Code or by entering CNR even without having knowledge of Judicial Case Number and location or address of Court Complex.
- 7. Through the effective use of CIS 3.1 workflow management is simplified and case management, with respect to every case, is easily achievable.
- 8. CIS 3.1 has independent module for managing business of Lok-Adalat in most effective way. This module will save a lot of stereo type efforts of staff members in organising, managing and disposing cases in Lok-Adalat. After introduction of this module, referring cases to Lok-Adalat, creating panels, allocating cases to panel, disposal of cases through Lok Adalat and returning the cases to regular Court has

- become easy. The work of issuing thousands of notices has become so easy that the work which required 15-20 days can be done in some hours.
- 9. In CIS 3.1 there an independent Mediation Module. There is a provision for registration of names of Judge and Advocate Mediators and their subject of expertise. If the cases are referred for mediation, they can be sent to ADR admin through CIS. ADR Admin can allocate cases through CIS to each mediator. User logins are provided for each mediator and he can generate personal cause list of the cases fixed for mediation before him. Dates can be fixed and communicated to parties and cases can be sent back to the Court after completion of mediation proceedings. By introduction of Lok-Adalat module and ADR module, CIS 3.1 is successful in connecting with all DLSAs and TLSCs in the country.
- 10. There is a feature of passing on alerts to judicial officers in respect of a case that is being dealt with through the CIS software.
- 11. CIS 3.1 keeps provision for eFiling, integration with data of Police, Jails under ICJS, integration with NSTEP. As a result, FIR and Charge-sheets can be consumed



### DC CIS NC 3.0 MAIN ATTRACTIONS

- 1. Improved Management Tools and report generation mechanism.
- 2. Fully Loaded with preconfigured National Masters.
- 3. Provision for Unification of different Nomenclatures.
- 4. Electronic Process Generation with QR Code.
- 5. Horizontal and vertical integration between Courts.
- 6. e-filing, e-pay integration mechanism available.
- 7. verification and defacement of eCourt Fees
- 8. Remand Module introduced.
- 9. Lok-Adalat Module introduced.
- 10. Mediation Module revamped.
- 11. Copying, Property and Accounts Module provided for further customization by High Courts.
- 12. Loaded with all Central Acts.
- 13. Section wise info of almost 250 Central Acts.
- 14. Inbuilt Forms of processes under CPC and CrPC.
- 15. Inbuilt Charge templates from IPC and Other IMP Acts.
- 16. Inbuilt templates for Judgments, Orders, Remand and Issues.

electronically from the police CCTNS system. This facility of consuming FIR and Charge-sheets will reduce work data entry in the entire country to great extent.

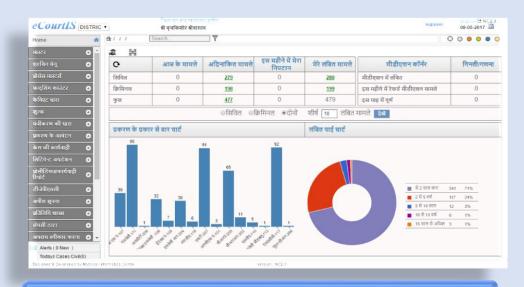
12. As each State/District is using own nomenclatures for Case Types, Purpose Types, Disposal Types and it has become difficult to achieve Uniformity at National Level. Therefore, Unification and Codification of National Types was undertaken. All

such National Codes are embedded in the system along with facility of mapping with local types is provided to facilitate the exercise of unification.

- 13. Process module is one of the most significant development in CIS 3.0 onwards. Templates of all forms of Civil and Criminal Processes provided under Code of Civil Procedure and Criminal Procedure are provided inbuilt in the software. Easy, step by step process generation, in built help for process generation, Unique Identity to each generated process with QR Code printed on processes are some of the highlighting features of Process Module. CIS 3.1 keeps provision to integrate with NSTEP mobile app and NSTEP portal with bidirectional exchange of data.
- 14. Pre-Trial module is an equally important addition of CIS 3.0 and later versions. Remand proceedings, bail and other pre-trial applications can be entered and disposed in CIS on the basis of FIR data fetched or entered in CIS.
- 15. There is a provision in CIS 3.1 to integrate with High Court CIS 1.0. Identically, there is a provision to transfer cases from one Court to another or from one Court establishment to another. As a result of this, vertical as well as horizontal integration

has been achieved. The data entry at the time of appeal filing in District Courts or High Courts can be minimized and a permanent joint is created between two cases, the one in trial court and another in appeal Court.

- 16. Almost 397 charge templates and 100 templates of issues are provided in-built in CIS 3.1. The issues or charge text can get populated by search with section, caption or Act. 46 different templates of Judgement and orders are provided in built in the CIS 3.1. These issue/Charge or order templates are most popular among the Judicial Officers. Judgements and order templates will assist Judicial Officers and stenographers
- 17. Facility of Improved management reports is one more innovation in CIS 3.1.
- 18. Random case allocation, Delay reason assigning facility, and newly introduced masters like Investigating agencies, Writ types, litigant status, specially notified Courts has also impact on CIS 3.1.



#### Bilingual version is adapted in

✓ Marathi (devanagari) –

#### maharashtra

✓ Hindi (devanagari) –

uttarpradesh, madhyapradesh, uttarakhand, chattisgarh

- ✓ Kannada **karnataka**
- Tamil tamilnadu
- ✓ Gujarati gujarat

### **eCourtIS Application**

Developed and implemented on complete **open source** 







#### **Modules implemented**

- Filing- scrutiny-registration
- ✓ Daily proceedings/cause lists/disposal
- ✓ Summons/notice generation
- ✓ Judgment/orders
- Pendency monitoring features in the form of dashboards and reports
- ✓ Citizen interface in the form of touch screen kiosk

# 5. Case Information System (High Court)

High Courts were using legacy system developed by the respective High Court almost two decades ago. Procedures, technology stack and data fields were different from one High Court to another. Developing a unified CIS, managing such diversified requirement was a challenge. High Court CIS is also developed as a product on platform similar to District Courts. Migration from the legacy system which were used by the Court staff for years together and bringing it to a new platform was a real challenge. Migration scripts were developed and 21 High Courts are migrated to National Core version NC 1.0.

- 1. Data migrated from diversified technology stacks like Foxplus, MysQL, Oracle, PostgreSQL etc to NC 1.0.
- 2. Every Case has unique CNR Code.
- 3. Listing module is one of the important modules in the High Court CIS. It helps users to list the cases before appropriate Bench or in the event of change of roster before changed Bench. Dynamism given to all High Courts to design pattern of

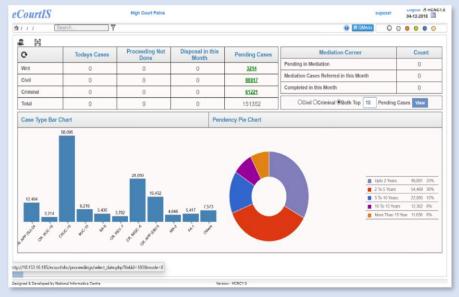
listing as per their own requirement. Listing logic can fetch the desired cases and can be set in desired chronology. The entire process can be automated, if so desired. Listing logic can differ from one Bench to another and it can be saved in the system. Source Code for this automation is shared with High Courts and they can develop this further as per their requirements.

- 4. Module for automated dates is developed as per the request of the High Courts.
- 5. Facility provided in HC CIS to pull the subordinate court data when the appeal is filed in the High Court. This will ensure tagging of HC CIS with District Court CIS.
- 6. More flexibility provided to High Courts to develop periphery, to customize cause lists and its logics etc.
- 7. Developments like NSTEP, ePay and eFiling all can be made applicable to High Courts, if adopted. Some of the High Courts have started eFiling.
- 8. Before migration to CIS 1.0, various High Courts had their peripheral module working. All those peripheral modules are annexed with CIS. The peripheral modules can be accessed through CIS as if it is integral part of CIS.

- 9. SMS software, web links are given to High Courts so that the links can be embedded in the respective High Court website.
- 10. ePay mechanism is enabled for High Courts and a provision is given in CIS

  1.0 for defacement of Court fee.
- 11. As many as 21 High Courts have migrated to HC CIS 1.0. Data of these High Courts is available on eCourts services portal, HC NJDG, eCourts Services Mobile App, etc.





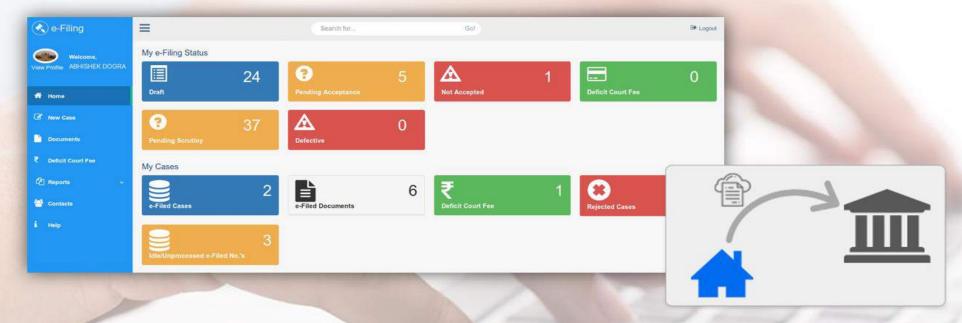
# 6. eFiling: (https://efiling.ecourts.gov.in/)

e-filing is an extremely important feature of Phase II of the eCourts Project. Through the process of e-filing, a litigant in any part of the country can file a case in any district court and in those High Courts which have subscribed to the e-filing software. Similarly, the opposite party can also file a response through the e-filing module. Documents can also be filed through the module. So far, more than 600 cases have been filed through the e-filing module in the Punjab and Haryana High Court and about 50 cases have been filed in the Delhi High Court through the e-filing module. Some tentative steps have been taken by some of the District Courts and it is expected that the District Court in Gurugram will soon utilise the e-filing module. The user manual is available on the E courts portal and can be easily accessed.

- 1. The e-filing module is user-friendly and does not require any training by a person who is familiar with the use of a computer.
- 2. The e-filing module is fully integrated with CIS 3.1.



# e-Filing



1 File case from home with e-Sign

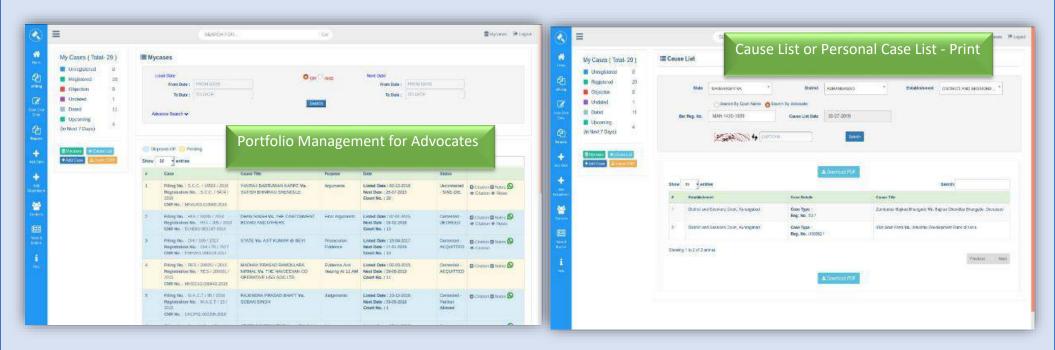
2 Online Court fee payment

3 Real time case status update

- 4 Inter-operability with CIS
- 5 Portfolio Management

- 3. Use of the e-filing module will make it more convenient for the registry of the appellate court to process a case since data entry will no longer be required.
- 4. Similarly, transfer of papers from one court to another will be completely obviated since electronic transfer of pleadings and documents can be easily achieved through the integrated system.
- 5. Uploaded documents can be digitally signed using eSign feature which is inbuilt in the software and can be used free of cost by litigants. Apart from eSign, documents can be signed using digital signature token or OTP based uploading is also provided where cases papers are allowed to be filed in the Court within prescribed period.
- 6. Case Data Entry/Public Data Entry is also provided in eFiling software. This feature allows parties or advocates to feed case data without uploading documents. This facility can be used by all the Courts, for that purpose it is not necessary to start eFiling. This facility can create a platform for eFiling in future.
- 7. Advocates are provided with Portfolio Management in eFiling accounts. Client communication with mail or whatsApp is enabled. A provision is made for sharing

uploaded documents with other Advocates or parties through mail. Cases of interest can be saved and managed in the software. Personalised cause lists can be generated for any date.



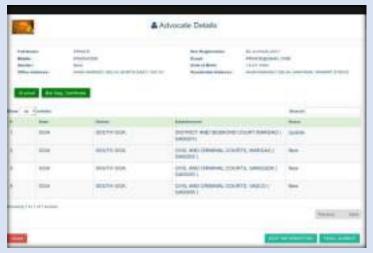
8. A facility is developed where any advocate can register himself on eFiling portal by eKYC or submitting his documents. Advocates can start managing their cases through eFiling account even though eFiling is not started in their District or Court Complex.



Registration of Advocate for eFiling

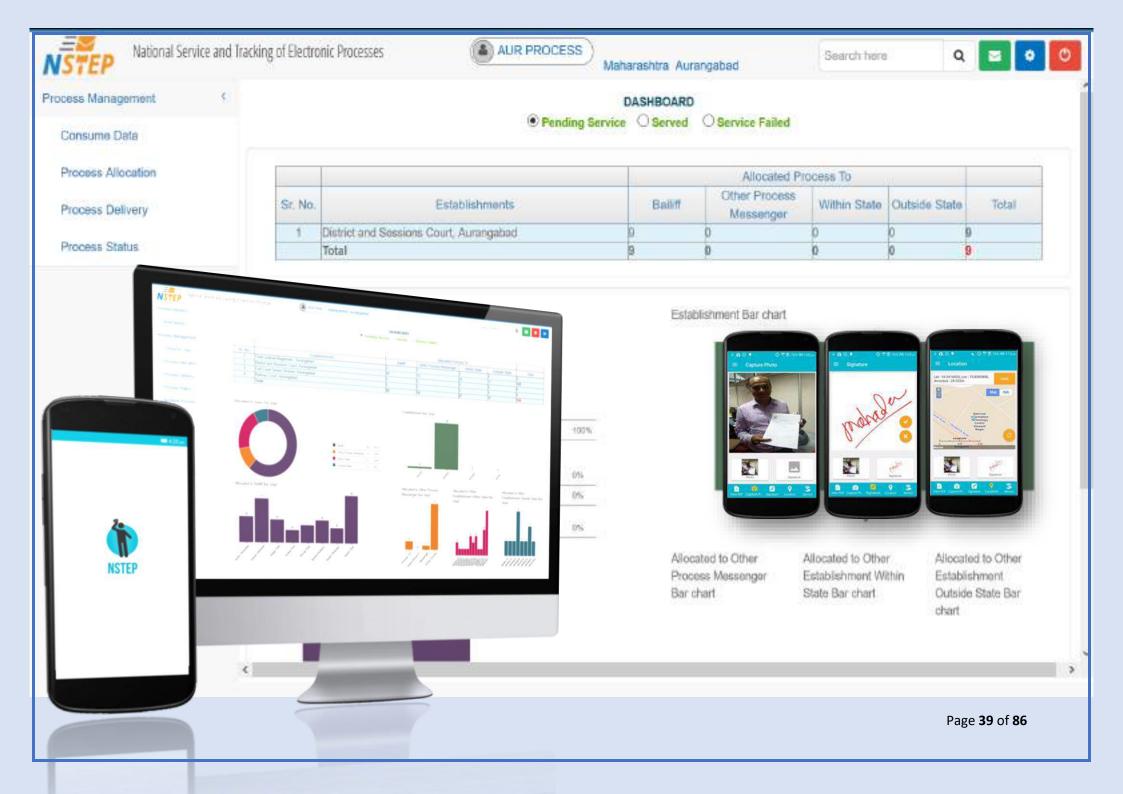
9. A single registered account of eFiling can be used anywhere in India for High Courts as well as District Courts is the biggest advantage that one can have through eFiling software.



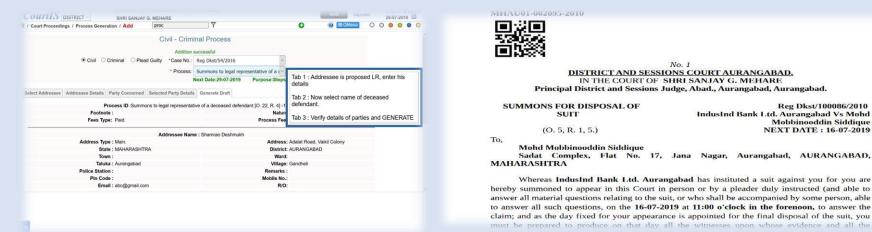


# 7. National Service and Tracking of Electronic Processes (NSTEP)

One of the main reasons for delay in justice delivery is the difficulty in service of summons. In fact, according to the Economic Survey roughly one-third of the delay in disposal of a case is due to failure to serve notice on the opposite party. Through the process of NSTEP, service of notice and summons is expedited and made electronically. In fact, it can also be effected through a mobile application. The advantage of service through mobile application is that it is easy to track the location where the service has been effected through the GPS service so that the process server does not either give an incorrect report or effect service on an incorrect person. Another significant advantage of the NSTEP module is that inter-State service and inter-district service of notice is simplified, and postal and other delays are obviated. Real time updates about service status also reduces delays to great extent.



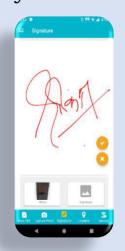
- 1. The NSTEP module is user-friendly and can be used by any process server or belief with minimal training.
- 2. The module has the advantage of being utilised in any part of the country since it is a unified module. Delays in service of notice or service of summons are reduced to the barest minimum.
- 3. Process Generation is done in CIS. A repository of all Civil and Criminal Process templates is made available in-built in CIS. Provision is made for process generation in local language. Help is provided for process generation so that step by step assistance is available to Court staff. Each process has unique ID and QR Code. By scanning the QR Code, all the details of the case can be seen through mobile app. The process needs to be published and once the process is published it cannot be edited.



4. Published process is fetched on NSTEP Portal. Process Administrator allocates the process. If the processes are to be served in local jurisdiction in that case processes are allocated to bailiffs and it immediately reflects on the mobile devices of bailiffs. Bailiff will visit location, take photograph, obtain on screen signature, his location is captured by GPS coordinates and finally he uploads the report of service. The report is immediately reflected on the portal and pulled in CIS.













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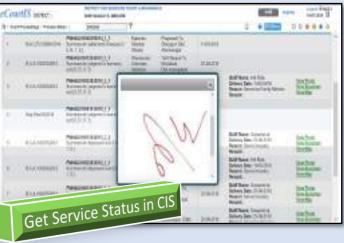
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5. Processes can be sent outside the jurisdiction within the District or other Districts or any State. As all the Court establishments are internally electronically connected and within no time the process reaches the destination. The report of service is made available in real time which reduces delay





## 8. ePayment - (https://pay.ecourts.gov.in)

The importance of the ePayment module cannot be overemphasised. Purchase of court fees and deposit of court fees can be achieved through the ePayment portal. This is a secure banking transaction. There are several other categories of deposits that can be made through the ePayment portal. For example, maintenance in case of matrimonial disputes, disputed rent, compensation in accident claim, compensation in land references and other deposits that a court may order. Similarly, fines and penalties in criminal cases can also be made through the ePayment portal. This makes it convenient for a litigant and also reduces footfalls in the overcrowded court complexes.

- 1. The ePayment portal is a single unified product and integrated with State specific vendors like SBI ePay, GRAS, eGRAS, JeGRAS, Himkosh, Stock Holding Corporation etc.
- 2. There are several High Courts where ePay Portal is already configured for more than one vendor e.g. Court Fees is configured for GRAS or Stock Holding

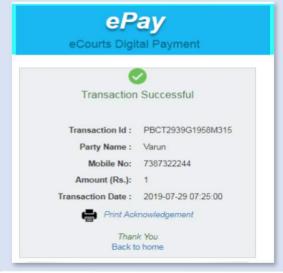
Corporation whereas other payments (Fine, Penalty, Judicial Deposits) can be through SBI ePay.



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- 3. ePay Portal is integrated with NJDG, therefore, it can fetch the data of case number and parties and other relevant details including name of Court, Judge and date of the order etc. once CNR or case number is entered. By selecting name of party and entering mobile number, payment can be made on the basis of OTP.
- 4. ePay mechanism is integral part of Virtual Courts as it facilitates parties to make payment of fine at any time as per his convenience from any place having connectivity including mobile phone.
- 5. Those High Courts who have developed Accounts Module as per its own requirements, they can integrate ePay directly with CIS and they can have paperless accounting in the Courts. They can also make use of POS machines integrated with CIS. As accounting procedure differs from State to State the activity is handed over to the High Courts as periphery development.
- 6. Facility to verify payment and to de-face the Court Fees is provided in CIS Software.







## 9. Virtual Courts

A very interesting concept of virtual courts has been introduced in Phase II of the eCourts Project. The entire court is managed through a computer although initially, a judge will be put in charge of the Virtual Court so that there is no hitch or any glitch that is encountered. Gradually, the court will be managed by the computer and simple compoundable cases such as traffic challans, cases under local and special laws, adjournments and so on can be taken care of by the computer. Through this process, it will not be necessary for lawyers and litigants to attend the court premises thereby reducing footfalls and; through the Virtual Court the time of the judges also saved and can be utilised for some other important activity.

A Virtual Court has been inaugurated in Delhi on a pilot basis and by monitoring its functioning, it will be possible to improve upon the process and extend it to other areas of decision-making which do not require any serious application of mind. Of course, a lawyer or a litigant has the option to opt out of a Virtual Court and have the case taken up by the established court. However, if the Virtual Court concept is

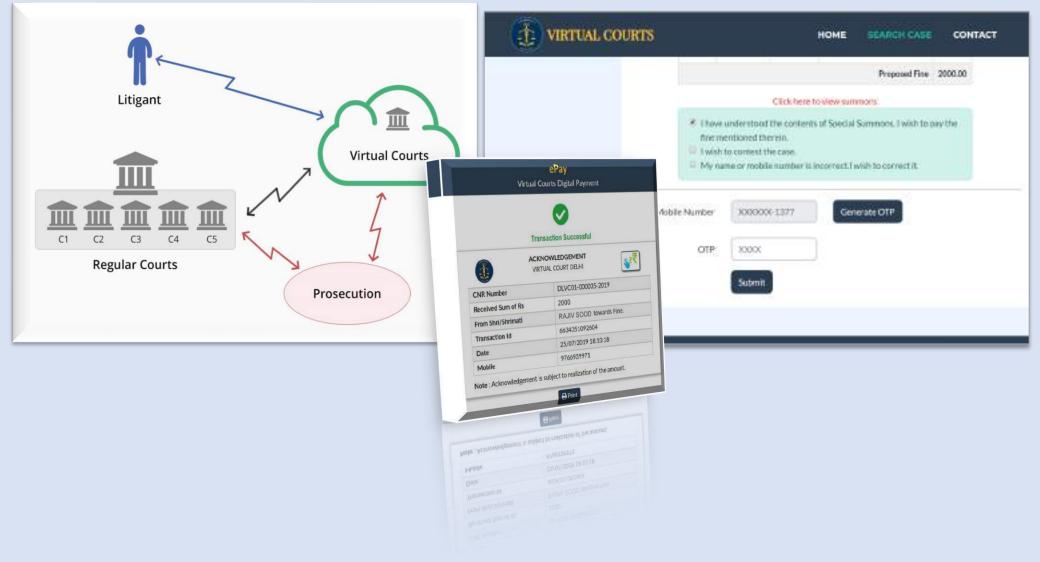
generally accepted, it will reduce the pendency of cases by several lakhs considering the large number of traffic offences and offences under local and special laws. The potential of Virtual Courts concept is enormous.



- 1. Virtual Court eliminates physical presence of offender/violator in the court.
- 2. Number of judges deciding all kinds of petty cases can be sent virtually to a single judge who can work from any part of the State or beyond. This includes traffic offences, Railway Court cases, labour law cases, municipal law cases and so on.
- 3. Virtual Court interface is created for Virtual Judge. The interface is provided intranet for security purposes, whereas, for violators interface is on public portal.
- 4. Challan originates after traffic violation by any registered vehicle and electronically recorded in eChallan System of Traffic or Transport Department. Police verify the identity of the violator and summon him upon to pay the fine. Thereafter, electronic challans are ready for consumption in Virtual Courts.
- 5. There is a provision to identify the cases wherein documents are impounded by police. There is also provision to identify the cases as per type of vehicle. Similarly, when challans are issued on the spot, GPS coordinates are captured about the place of occurrence. This facility can be used to group the cases from Districts, or regions besides data fetched about the location.

- 6. eChallan system uses Offence Codes to classify acts of traffic violations. Offence Codes are simple numbers given to acts of violation without any reference or relation with database of Acts, Rules and Regulations and Sections or sub-clauses. When data is consumed in Virtual Courts, these acts of traffic violations are automatically identified qua the Act, Rules and Regulations. Violating Act and punishing offences are separately identified by not only Act or Rule but specific Sections, sub-section and Rule. By this litigant gets clear idea about the act with which he is charged and legislative provisions as to violation and punishment.
- 7. eChallan system is using data of Transport Department (VAHAN)(SARATHI)regarding registration number of vehicles and mobile number of registered vehicles or driving license and mobile number of persons holding driving license. Sometimes, vehicle change hands by transfer of ownership, sometimes some other person is allowed to use vehicle, sometimes mobile numbers are incorrectly recorded in database. As a result, it is possible that intimation may go to wrong person despite verification by police. A facility is given to request

correction of mobile number or name on virtual court public portal. A person on receipt of OTP can request police for correction of name or mobile number.



- 8. Apart from fresh challans transmitted by police to Virtual Courts, stale traffic related cases which pending in lakhs in the country can be electronically transmitted to Virtual Courts. All those stale cases, where mobile number exists, are ready to be consumed by Virtual Courts. Additionally, where mobile number does not exist in CIS data base, police can be requested to update mobile numbers of all such stale cases by giving limited access to update the mobile numbers. Once mobile numbers are updated cases can be consumed in Virtual Courts.
- 9. eFiling data also resides in cloud and Virtual Courts data also resides in cloud. At present data of efiled cases is consumed in CIS for regular Courts. It has now become very easy to allow efiling system to feed data to Virtual Courts. Both the system in sync with each other can produce wonderful results in days to come.

## 10. 'eCourts Services' Mobile application

Realising the importance of mobile applications and the existence of a very large number of mobile phone users all over the country, an easy-to-use mobile application has been developed. It has had more than 29 lakh downloads already and is used by lawyers, litigants and judges alike. In terms of utility and efficacy, the mobile application rivals the eCourts Services National Portal.





- 1. 'eCourts Services' mobile application is available on both the platforms i.e. Android as well as iOS.
- 2. Facility is available in Mobile App to search the case just by scanning QR code.

  Now QR Codes is available on case filing acknowledgements, Court Processes, receipts, Judgements or orders etc. Therefore, just by scanning paper, current case status information can be obtained.
- 3. Case be searched on following parameters a) CNR number b) QR Code c) Party name d) Case Number e) Filing Number f) Advocate name g) FIR Number h) Act Name i) Case Type j) Caveat Number. For a) and b) it is not necessary to enter State, District and Court Complex, whereas, for rest of the options user has to select State, District and Court Complex.
- 4. Apart from above mentioned search-based services, lawyers can generate 'Date Case List' or 'pendency/disposal account' of their own cases by entering their name or Bar Registration Number.

- 5. "My Cases" is facility to save cases of interest on the device of the user. User need not search the saved cases again and again, just by click of refresh button the user gets updated status of saved cases. Saved cases can be arranged 'District wise' or 'Date wise. A very effective search facility is provided under 'My Case' feature which can search name, number, date, location etc.
- 6. A calendar tool is also provided in the app. On opening calendar it shows figure of saved cases on various dates. Dates on calendar can be clicked to see the case details and links of case number can be further clicked to see entire history the case.
- 7. A facility of printing **QR Code** with cause-title is provided on https://services.ecourts.gov.in. All Government Departments/Institutional Litigants/Lawyers can take print of cause title containing QR Code and paste on the cover page of the file. Benefit of this facility is being taken by most of the Institutional litigants like Govt. Departments, Banks, Insurance Companies, Organizations, Universities, various Institutions, Public and private Co. The facility

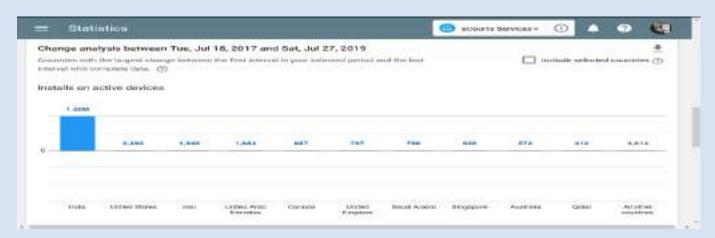
of QR Code does not require user to enter any data, he is not required to select State, District and Court Complex, a user has to scan the QR Code on file and instantly he gets real time current status of the case. The Facility of QR Code has made "mGovernance" possible for every citizen and Institutional litigants like Govt. Departments, Banks, Insurance Companies.

- 8. Single Mobile App for High Courts and District Courts in the country: "eCourts Services" app can be configured exclusively for District and Taluka Courts or exclusively for High Courts or for both. Configure option 'Both' provided in the app enables toggle button using which a user can shift from District Courts to High Courts. Availability of High Courts and District Courts information under single common roof has made it possible to know and track the case status any case in the country through single mobile application.
- 9. The "export and import facility" provided to secure data of saved cases in case device is formatted or changed or for like events. User can export data of saved cases and save it at is/her choice. The same data can be imported whenever

required. Data can be exported to google drive, mail, or device. In the event of import, saved data of cases gets identified automatically.

- 10. **Help videos** are uploaded on you tube channel "eCourts & NJDG Public". Total 16 help videos are uploaded explaining how to search cases with the help of mobile application.
- 11. The mobile application has information available with respect to all District Courts and all High Courts. It is the only application which has this dual mode.





## 11. JustIS – A Mobile app exclusively made for Judicial Officers:

JustIS mobile is one more innovation exclusively for Judicial Officers. Keeping in mind the importance of case and court management, JustIS app is released. So far, in the Country there are more than 7262 installation of JustIS mobile App. Although eCourts Services is a complete app for litigants, lawyers and Judges, a Judicial Officer needed some more specialised tools for case and court management with added security. In the app focus is kept on cases relating to own Court of the Judicial Officer. The data of any Court associated with Judge can be only viewed through JustIS app and no data can be entered or modified or deleted through the app. Every Judicial Officer in the country has unique JO Code. eCommittee has created and given JO Codes to all the Judicial officers in the Country. All these JO Codes are entered in CIS software. A request was made to update data of mobile numbers, designation, email, date of appointment etc. On the basis of this information, secured connection is established between Court and Officer using his JO Code and Mobile number to his Court CIS data.

## JustIS Mobile App Judges Portfolio

Court
Management
System for
Judicial Officers



1. JustIS Mobile App is case and Court management tool given to every Judicial Officer in the Country working in District and Taluka Courts.

#### **CASE MANAGEMENT**

- 2. The mobile app facilitates case management by allowing Judicial Officer to save cases of priority as important. Whenever saved cases is listed, alert indication is given in the cause list as well as in management tab.
- 3. There is facility to save notes about important cases e.g. time-bound cases, stayed cases or more than 10 years old cases.
- 4. Saved cases whenever listed before the Court, list of saved cases can be seen in management tab. Important cases to be listed on a future date can be seen quickly.
- 5. Search facility is given to search saved cases by words and numbers.
- 6. Calendar tool provided in the mobile app permits Judicial Officer to give dates while adjourning cases. Calendar tool allows judicial officer to quickly overview cases kept along with stages on the selected date. This facility is very popular amongst judges.

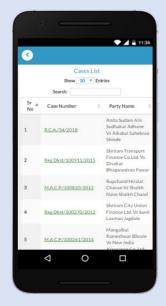
7. Cause list can be seen for any past or recent future date. Every case shown in the cause list can be clicked to see previous history in the case along with orders passed, if any.

#### **COURT MANAGEMENT**

- 8. Dash Board gives all required information of the Court Cases.
- 9. Alert tab gives information of daily required information viz. Today Listed, undated cases, Institution & Disposal in current month and total pendency in the Court. All the figures shown on the dashboard can be drilled down.
- 10. Pending cases tab gives information of Civil and Criminal cases. The information is made available with following classification viz. year wise, Case type wise information, stage wise information and ADR information. The information shown in the form of data can be drilled down further to generate case list. The information is also shown in the form of graphs and charts.
- 11. In the same fashion, disposal related information is provided in Disposed Tab on identical parameters.

- 12. Search Tab provides facility to search cases on various parameters like case type, party name, CNR Number, scan QR Code, case number, filing number, FIR number, Act sections etc.
- 13. Colour codes are fixed for cases relating to particular age group. On the basis of colours in the background, immediately age of the case can be ascertained without knowing date of registration.
- 14. The background colours relating to age of the case, helps Judicial Officer to manage his daily cause list effectively and he can immediately decide which cases are to be given priority and in which cases litigants are not made to wait unnecessarily.









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## 12. Migration to Cloud

Considering the large volume of information that is available under the eCourts Project, it is imperative that data is migrated to the cloud and managed by the respective States. For shifting all the data to the cloud, it is necessary to have robust connectivity and so far a pilot project in Goa has been very successful and all the cases in Goa our managed in the cloud. The pilot project has been extended to one district in every State, in consultation with the Chief Justice of the High Court and so far considerable success has been achieved. Out of 25 pilot locations, 12 locations have successfully tested cloud. It is expected that in the next few months all the data will be migrated to the cloud and will be available for every district in the country.

Considering the large volume of information that is available under the eCourts Project, it is imperative that data is migrated to the cloud and managed locally.



Benefits of migrating to cloud are as under:

- 1. **Reduced IT Cost**: Moving to cloud may reduce cost of managing and maintaining the servers locally.
- 2. **Quick and Easy setup**: Cloud setup is very quick and can be configured easily by the technical team.
- 3. **Perennial Availability**: Using Cloud, system will be available 24x7, only robust network connectivity is required.
- 4. **Flexibility**: Once application is migrated to cloud, it can be accessed from any location over VPN. No need to be in office premises to access cloud.
- 5. **Scalability**: In locally managed server there is limitation on the resources which are procured. In Cloud environment resources can be scaled up if required at any point of time.

- 6. **Agility**: To be productive one needs to be quicker and dynamic. Cloud can help in quicker delivery, better collaborations and faster rollouts.
- 7. **Data Security**: Storing data on the cloud is safer than storing it on physical server locally. A breach of security at local premises can lead compromised data security. Cloud is safe as only authorised users are allowed to access the data.
- 8. **Automatic Software Updates**: In physical servers, OS updates are to be patched manually, on Cloud updates are automatically patched so that system remains upto-date.
- 9. Ease in release of new CIS version or patches: Today patches or new releases are to be distributed to the district courts. In Cloud environment, centrally patches can be updated on urgent basis without any delay.
- 10. Services can be provided in real-time

## 13. eCourts National Portal

This is a unified portal giving a bird's eye view of all the services that are available under the eCourts Project. Through this portal all relevant information about any case is available such as case status, next date of hearing, cause list, orders and judgements. This has been a very popular portal with thousands of visits on a daily basis.



1. The portal contains User Manuals making it easy for those who have not been given adequate training to operate CIS 3.1 and other features that are available to lawyers and litigants under the eCourts Project.

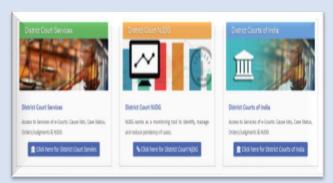




- 2. A large number of training videos are available on the portal which demontrates how to use some specified applications.
- 3. The portal is user-friendly and what is more important is that it can be easily and effectively utilised by visually handicapped persons. It is one of the few portals in the country which has this facility.

4. It is rare to find a match for such National portal which caters to the need of citizen to know case status, cause list, judgments and orders regarding cases of all District and Taluka Courts in the country and 21 High Courts in the country through one single unified portal.





- 5. Case Status can be searched on various parameters like party name, advocate name, case number, case type, FIR number. CNR search is most significant development, as while searching case status using CNR number a litigant or lawyer need not have to select State, District and Court Complex. Therefore, process reengineering efforts to give unique address or identity to each case has facilitated the search to know case status or judgment / order.
- 6. Facilities like caveat status and court location are introduced on the services portal.

- 7. Already existing facilities are made more meaningful by providing search in the cause list, search in the names of judges, making judgement and order search more specific by categorising it between interim and final etc.
- 8. The portal is a gateway for various applications like, District Court NJDG, High Court NJDG, Services portal for district courts, Services portal for High Courts, Portal for District Courts, ePay, URLs to download services Mobile App etc.

9. The most distinguishing feature of eCourts Portal is that it has now become multilingual.



10. ePay, eFiling and Virtual Courts are newly added facilities under unified eCourts

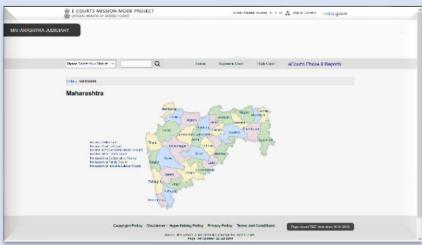
Portal.

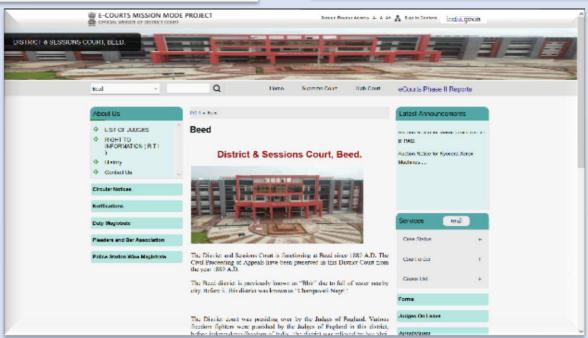




11. In the eCourts Phase II action policy document plan it was desired that every District Court should have its own independent website. It was mentioned that every website visitor must be able to search case status, cause list and view judgements and orders. Therefore, using drupal platform, district court websites are provisioned for each District Court in the Country.







### 14. Automated emails

emails are automatically sent to registered users on a daily basis. This facility is available to lawyers, litigants as well as police stations which deal with criminal cases. Facility of emails was more suitable to lawyers and police stations, as they use to receive bulk of SMS every day. There are so many added advantages in receiving automated emails. There is facility to communicate only email which consists of all the updated information about all the listed cases before the Court. Another advantage is copies of judgements and orders can be received on email. Cause list services can be availed through emails only. In Family Court cases or matrimonial cases, data is masked on public portal and copies of judgements and orders are not provided for privacy concerns. Such litigants and lawyers can very well avail services through automated email to receive daily updates and copies of judgements and orders passed every day. Judgements and orders that are transferred through email are in the PDF format making it very convenient to users to read and store the judgement for record purposes.

Apart from this, when processes are generated for sending summons or notices, if the email addresses of witnesses or person to whom processes are directed against are entered, processes are sent to the desired recipients.





## 15. Push and Pull SMS:

- 1. As of today, more than 10 million SMS have been sent to users across the country.
- 2. Before migration to CIS 2.0, only Leased line locations were able to send SMS. After migration to CIS 2.0, locations having VPN IP are also able to send SMS. Similarly, Court establishments which are running on State WAN were made talk with NICnet and now those locations are also able to send SMS.
- 3. SMS is very vital service for common litigants particularly those who possess feature phones. In the feature phones SMS is the only medium to pass on the information relating to case status.
- 4. SMS are proactively sent from the local court complex to the Litigants or Advocates who have registered their mobile numbers with the Court.
- 5. Litigants and advocates get SMS on occurrence of each event in a case like filing, registration, adjournment, scrutiny, listing, transfer of case, disposal, uploading of order etc., on their mobile registered with the court.

6. SMS facility is also important to get the Case status in case of privacy matters which are not available on the public interfaces like ecourts.gov.in or Mobile App.



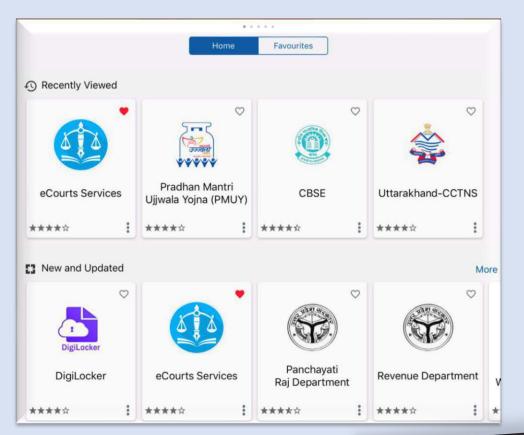
# 16. Integration with external agencies/departments

Several APIs are developed for integration with agencies/departments external to the eCourts project. These APIs are helping the departments to develop their own system and integrate the Case information with it.

#### **UMANG**

UMANG (Unified Mobile Application for New-age Governance) is a Mobile App that provides a single platform to citizens to access pan India e-Gov services ranging from Central to Local Government bodies and other citizen-centric services.

e-Courts services are now integrated with UMANG App and launched for District and Subordinate courts. All the APIs required by UMANG were shared by e-Courts team. Now case status, orders/ judgments, cause lists etc., are also available through UMANG App to common citizens.







#### **Common Service Centres**

- The CSCs offer web-enabled e-governance services in rural areas, including application forms, certificates, and utility payments.
- There are around 3.65 lac Common Service Centres across the country which provide services to such section of the society who cannot visit website, or does not have smart phone or lack skill to make search of their own.
- By connecting eCourts Services with CSCs, a section of country which was away
  from the digital world (Portal, mobile app, kiosk etc.) for some disabling factors
  but carries aspiration to know about his own case, such class could successfully
  join eCourts Services through CSCs.
- Common Service Centres (CSCs) are access points for delivering services to citizens from rural and remote parts of the country. e-Courts API is shared with CSCs. Citizens can now get the status of their cases through these centres.

- Initially only CNR services were given, now not only CNR but search by case number, name and other parameters is given through API to CSCs. CSCs charge minimum 5 Rs and give printed information to the person seeking services.
- Litigants can get copies of judgements, orders, printed information about next date, disposal of case, transfer of case from one Court to another, change of advocate etc and many more information.
- ePay services can be part of services offered to CSCs. Services like Tax returns,
   PAN Card etc. are already being offered to CSCs by Government. A husband can conveniently pay maintenance to the wife regularly in the Court using such services and like amounts can be handled through this platform.





#### **LIMBS**

LIMBS is an initiative by Law Ministry of the Government of India, to manage the Government Litigations across the courts in the country. e-Courts API is shared with LIMBS. Data is consumed by LIMBS software and used to automatically update the Case Status.

Initially only CNR services were given to LIMBS, now not only CNR but search by case number, name and other parameters is being given through API



### **Interoperable Criminal Justice System (ICJS)**

Inter-operable Criminal Justice System (ICJS) is an ambitious project, aimed at integrating the Crime and Criminals Tracking Network and Systems (CCTNS) project with the e-Courts and e-Prisons databases, as well as with other pillars of the criminal justice system such as forensics, prosecution and juvenile homes in a phased manner.

e-Courts has become interoperable with other pillars of the criminal justice delivery system. The system is blend of consuming data from APIs created by CCTNS into CIS and APIs are shared with CCTNS to consume Case Information.

ICJS integration can further is being enhanced by connecting ICJS with NSTEP. NSTEP has web portal from where process can be allocated with in jurisdiction, beyond District or beyond State. ICJS platform can be used allocating process to CCTNS to particular police station or Superintendent of Police or Commissioner of police at the desired location.

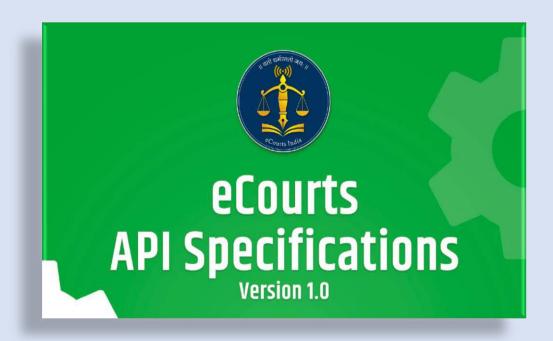
This will have a great impact on reducing delays in serving processes in criminal cases. Proclamations issued by Courts will have real impact if the information is circulated to all the police stations using ICJS. Absconding accused could be brought to justice, in organised way using the process to flow from CIS to NSTEP allocation using ICJS to CCTNS and report of service will flow from CCTNS to ICJS to NSTEP to CIS. The system can work with mobile app or without mobile app. If police have their own mobile app, they may use it or in absence of mobile app also, digital transmission of electronic process from the Court to police station/Officer will be very quick. Great amount of delay can be minimised in serving process on offenders residing in other States or District



### **Open APIs**:

Tracking cases at Institutional level is demanded by various institutional litigants/Government agencies. It was felt necessary to evolve some mechanism that may help to track the cases centrally at institutional level. Institutional litigant along with tracking the cases centrally may also need to monitor readiness of the case,

manage pendency, manage compliances etc from the litigant's perspective. eCourts may share the data with such institutional litigants using Open API. Institutional litigant can further develop their own application for managing litigation. Accordingly, Open APIs version 1.0 are developed for Government agencies and will be available on central platform created by NIC.



# 17. Capacity building and self-reliance - Role of DSAs:

Nationwide implementation of the eCourts was in itself a challenging task. Implementing at the remote Taluka and District Courts in distributed mode was further challenging. Every District Court Complex has around 2-3 Servers and an average 70 Client machines. LAN, routers, switches, printers, scanners and other peripherals were also provided in the court complexes. Management and maintenance of the infrastructure and system software at these remote court complexes required technically skilled and experienced manpower. To get the manpower on contractual basis for limited time and also make them work at such remote locations was a difficult task. One assistant level staff member was chosen from every District Court to perform the work of Infrastructure management and System Administration. These Assistants were designated as District System Administrators (DSAs).

465 DSAs are trained to perform the functions in the Court Complexes of the country. DSAs take care of network management, logistic management, database

administration and backup, data transfer, OS installation, etc. Many of them have further acquired necessarily skills on their own, trained themselves, and a few even cleared Red Hat Certified Engineer's tests, mastering open source technology. The spirit of self-reliance ensures that undaunted by any obstacle, the system works even in North East Courts, remote part of Chhattisgarh, Jharkhand, J&K etc as efficiently as in IT Hubs of Bangalore, Hyderabad, Pune or Delhi. Data from remote 3,111 court complexes across the country is seamlessly transferred to NJDG from where it is available to citizens and decision makers in the country.

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The report is in conformity with the report as placed before the eCommittee meeting dated 30.07.2019.

Member (Project Management),

eCommittee, Supreme Court of India