

# TO-BE & Functional Requirement Specifications Report Volume-1



**State Mission Mode Project, Haryana  
Department of Information Technology  
Government of India**

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## **Executive Summary**

E-district is a State Mission Mode Project under the National e-Governance Plan. The project aims to target high volume services currently not covered by any MMP under NeGP and undertake backend computerization to e-enable the delivery of these services through Common Service Centers.

e-District has been envisaged by Government of Haryana(GoH) as automation of workflow and internal processes of District Administration with the possibility of seamless integration of various services covered under the project like Certificates, Pensions, Public Grievances & Right to Information, Public Distribution System, Utilities, Dues and Recoveries, Agriculture, Revenue Court and Employment services.

The objective of this program is to implement Pilot e-district model in Rohtak District of Haryana and provide integrated citizen centric services in the district.

An "As Is Study" report for 10 categories of services under e-District project was submitted to the state on 19<sup>th</sup> December 2008. This was followed by the submission of Business Process Re-engineering requirements report to the HARTRON on February 04, 2009.

This To-Be & FRS report divided into two volumes. First volume consists of BPR service components with FRS and second volume consists of To-Be & FRS for all 8 services. This report includes the recommendation of review held with State advisory committee and SIO-NIC on dated 6<sup>th</sup> February 2010 and 18<sup>th</sup> February 2010.

The report has been structured in way to cover the architectural framework to support the e-District application and then it explains the service components which serve as the building block for defining the 'To Be' processes which has been re engineered using the components. The service components will be linked with the 'To-Be' processes so as to provide for consolidated delivery of the services under the e-District Project. The streamlining of the front end, channels of delivery, service components and 'To-Be' process will provide a comprehensive service delivery mechanism for better delivery of services to the citizen.

The proposed service flows have been explained with the help of To-BE process maps. These process maps capture the roles of various stakeholders as well as the flow of information and documents from one level to another. It also explains how the different components interact with the system for delivering the requested service in a timely and an efficient manner. Further, it details out on information about its starting and completion conditions, constituent activities and rules for players and non players, process holders and participating entities, user tasks to be undertaken,

references to applications which may to be invoked in the process, definition of any workflow relevant data which may need to be referenced, etc.

The proposed Functional Requirements Specifications (FRS) in this document deals with the application's intended capabilities and interactions with the users. The proposed FRS also mentions the functional aspects that the application needs to have to support the various requests that the users might require from the system. The FRS takes into account the various scenarios that the application might have to encounter during service request reprisal and also it specifies how the system will integrate with the various components specified in the BPR report.

An overview of the technology architecture has been presented that the proposed application would be built upon. It about various technology layers of the application that the user would interact while accessing the database. The standard technical specifications of the components that serve as the building block of the architecture have been provided. During the preparation of application architecture standards specified in the e-District guidelines have been strictly adhered.

## 1.0 Background and Introduction

### Background

The National e-Governance Plan (NeGP) of Indian Government seeks to lay foundation and provide the long term impetus for long term growth of e-Governance within the country. The focus of the NeGP is on delivery of services to citizens in an efficient and transparent manner at affordable cost to the citizens. The NeGP envisages the creation of certain core and support infrastructure which would web enable services for anytime anywhere access and thereby radically change the way Government delivers services.

### NeGP vision

"All Government services accessible to the common man in his locality through a one stop shop ensuring convenience, efficiency, transparency and reliability at an affordable cost to meet the basic needs of the common man."

E-district is a State Mission Mode Project under the National e-Governance Plan. The project aims to target high volume services currently not covered by any MMP under NeGP and undertake backend computerization to e-enable the delivery of these services through Common Service Centers. Districts are the primary delivery channels for government administration which deliver a large number of services to the citizens; therefore e-Governance can significantly improve government service delivery. E-district is defined as "delivering more than 75% of the services of Collectorate electronically"

**Haryana is surging forward with a motto of '*reaching the un-reached and 'bridging the digital divide'***

Government of Haryana envisages e-district that delivers majority of services through the district administration with the use of Information Technology and Communication (ICT). e-District has been envisaged by Government of Haryana (GoH) as automation of workflow and internal processes of District Administration with the possibility of seamless integration of various departments like Revenue, Food, Basic Education, Social Welfare, Minorities, Forests, Panchayati Raj, Rural Development, Agriculture, Election, Home, Minor Irrigation, Passport, Irrigation, Finance & Treasuries, Family

Welfare, Horticulture, Cooperatives, Transport, Health, Land Records, and Registration etc. for providing services to the citizens. This project is of paramount importance to the State as it would help in creating an automated workflow system for the district administration and help in providing efficient individual department services through Common Service Centers (CSCs) which would be the primary front end channels envisaged under the NeGP program by Department of Information Technology (DIT), Ministry of Communication and Information Technology (MCIT), Government of India (GoI).

The objective of this program is to implement Pilot e-district model in Rohtak district of Haryana and provide integrated citizen centric services in the district.

According to the guidelines framed by the Department of Information Technology (MIT) 10 core services were to be implemented under the e-District mission mode project (MMP) out of which 6 core service were identified at the national level and the State could add 4 more services at its discretion. Keeping in view the NeGP vision and DIT guidelines, 4 services were identified by the State in a meeting held on 28<sup>th</sup> July 2008 in Chandigarh and 28<sup>th</sup> August 2008 in Rohtak.

6 core categories of services as identified at the national level:

- Certificates
- Pension
- Revenue court
- Dues and recovery
- Ration card (PDS)
- Right to information (RTI)

4 additional categories of services as identified at the state level:

- Utility
- Agriculture related services
- Education
- Employment

Following the identification of 10 categories of services and the sub-service under each category, an As-Is study was conducted for each of the 10 identified services to

evaluate and understand the current ground situation keeping in perspective the people, process and the technology involved. Specific inputs were taken to understand the current scenario with respect to the mandated process vis-à-vis the process being followed, transaction volume, revenue generated, dependency on other departments, relevant Government Orders, Administrative Orders and Acts etc., existent digitization level and current IT capability of the service owners.

An "As Is Study" report on our understanding of the AS-Is scenario for all the 10 categories of services under e-District MMP was submitted to the state on 19<sup>th</sup> December 2008.

### **1.1 Project Objective**

The main objective of the e-district project is to computerize the workflow system and internal processes of the administration of the pilot districts with the help of Information & Communications Technologies (ICT). The state envisages meeting the following objectives with the implementation of e -Districts project:

- Implementation of an efficient electronic workflow system for District Administration.
- Infusion of transparency and accountability in operations
- Reduction of workload of department personnel
- Ensuring longevity of the data / protection from damage from moisture and other climatic factors
- Electronic security and control of confidential data
- Fast processing of public cases/appeals/grievances dissemination of information as per public requirement
- To create an efficient delivery mechanism from the Government that brings citizens to the district administration
- To disseminate the information required by citizen

To proactively provide an efficient system of disseminating information on the Government schemes planned developmental activities and status of current activities

## 1.2 Scope of Work

The scope of the project is limited to implementing the model e-District of Haryana. The scope of work as defined in the project document is being enlisted below -

- To cover maximum G2C and G2B services provided in the district through the use of ICT. Services in the district that are delivered from sub-division / Tehsil and block level are to be brought under the ambit of e-District. It is pertinent to mention that emphasis of this initiative is on the services and not on mere computerization of Collectorate along with its Tehsils and Blocks.
- To integrate with ongoing initiatives of the Government under NeGP such as SWAN, Capacity Building, Common Service Centers, State Data Centers (SDCs), SSDG, NSDG, etc.
- To integrate the state's ongoing e-Governance initiatives in the areas of Land Records, Registration, Treasury, Agriculture, Transport, Food, Revenue, e-Disha. The scope of the program is limited to implementing the model e-District in Rohtak pilot District of Haryana and providing assistance in development of a Request for Proposal (RFP) for statewide roll out based on the success of pilot e-Districts implementation. Thereafter, the rollout of the implementation across the state, based on this RFP, would be the responsibility of the state Government.

The specific activities in the e-District project includes

- 1) Requirement Analysis
  - i. Planning
  - ii. 'As -Is' Assessment
  - iii. Target Envisioning
  - iv. 'To -Be' Processes
- 2) Development of software application systems
- 3) Data entry / digitization of manual records
- 4) Provisioning of IT Hardware, Licensed Software and Networking (Local Area Network)
- 5) Refurbishment of Administration Offices
- 6) Implementation of the e-district applications
- 7) Training of the departmental personnel and users

The detailed scope of work is:

- 1) **Requirement Analysis:** In order to benefit from this initiative it is necessary to analyze and then redesign the current district administration system and its



components to bring in effectiveness, efficiency and added value contribution to the objective of district administration. The BPR would comprise of following steps:

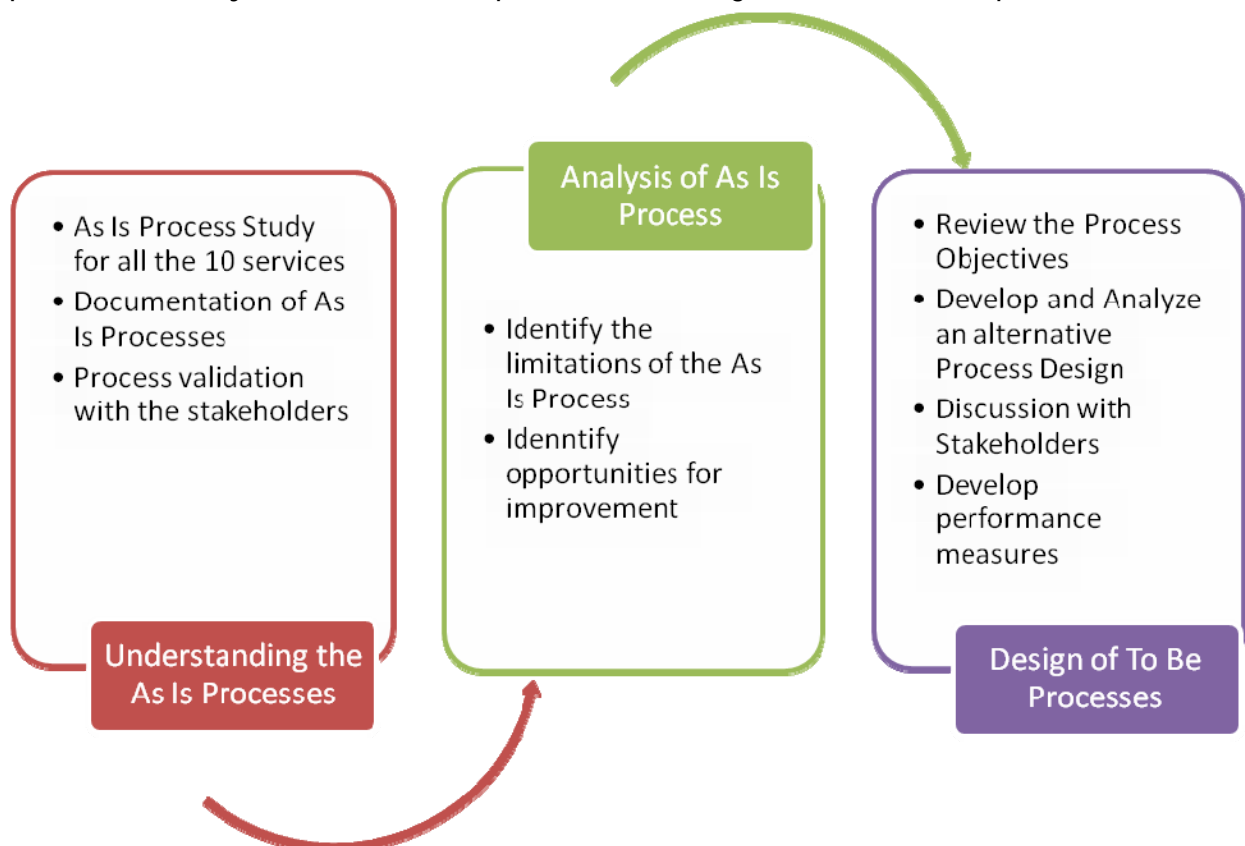
- 2) **Planning:** This step would entail planning activities that would include the selection of core implementation team with representatives of pilot district administration, the creation of a project scope document, and an examination of existing workflow system.
  - a) **As-Is Assessment:** This assessment would primarily comprise of examining the existing workflow processes and system used by the district administration. A business process map for the current process has been prepared. Subsequently, similar activities would be grouped for process normalization and redundant activities would be proposed for removal.
  - b) **Target Envisioning:** The target state would be envisioned after benchmarking of the normalized processes by comparison of both the performance of the district administration's processes and the way those processes are conducted with those relevant to best practices in the industry to obtain ideas for improvement.
  - c) **To-Be Process:** After the identification of potential improvements to the existing processes, the development of the To-Be workflow system would be build on the research from the benchmarking and best practices activities. It would also be required to identify and document risks associated with implementation of the automated workflow processes. The resultant To-Be processes would be validated by the district administration officials and duly approved by the government before implementation.

### **Report Purpose**

This report consists of the redesigned process framework for the 10 services undertaken as part of the Haryana e-District Project. The areas for improvement have been identified after scrutinizing the bottlenecks; inefficiencies and non value add activities observed during the course of As Is Study. New processes have been designed after deliberations with the District Administration and are in line with the guidelines laid down by the Department of Information Technology for the e-District Project.

### 1.3 Overall Approach

For each identified services, the project team adopted the methodology illustrated in figure given below for designing new processes. The process re-design methodology broadly involves three phases - Understanding of "As-Is" processes, Analysis of the "As-Is" process and design of the "To-Be" processes.



#### Phase I - Understanding the As Is Processes

This phase was initiated with identifying process owners and other stakeholders involved in the workflow for the identified processes. Project Team visited all the offices involved in service delivery of the identified services. After gathering the information available across all the offices the team had iterative discussions with the process owners. In all cases the first meeting was held with senior level staff (ADC, SDMs, and Tehsildar) and subsequent discussions were held with the operational staff (Computer Operators, Clerks etc.). Reference material (such as GOs, Service manuals, Application forms, records) was also collected by the team to supplement their understanding of the process. After gathering data and supporting material for each process, the processes were documented by the team in the form of flow charts and

presentations. Subsequently, these were collectively reviewed by District Project Team.

### **Phase II - Analysis of the As Is Process**

The purpose of this task was to conduct analysis at the macro (process) and the micro (sub-processes) level of the selected processes to identify bottlenecks and suggest opportunities for the improvement thereof. Processes were mapped to the sub-process level and Value Analysis was done to categorize each sub-process as Value-Adding or Non Value-Adding. This framework was found suitable for key process analysis in the current scenario as the number of Non Value-Added components was high and further analysis was required before eliminating or minimizing them. The shortcomings of each of the processes / services were compiled as 'Issues and concerns in current processes'. Additional inputs obtained during one-to-one discussions with the staff are also used to identify the limitations of current processes.

### **Phase III - Design of To Be Process**

In this phase, five key activities were undertaken, as detailed below:

#### **a. Review the process objectives**

The purpose of this step is to determine whether the desired end result of the process:

- is consistent with the objectives
- addresses customer needs and expectations
- is measurable
- can be implemented

#### **b. Develop and Analyze Alternative Process Design**

The purpose of this step is to identify and explore the possibilities of alternative procedures that can be adopted to accomplish the desired outcome. Each activity of the 'As-Is' Process was analyzed to re-assess limitations and explore alternate processes that would result more efficient and innovative processes. The national / international Best Practices compiled in the previous steps were also used to identify the re-usable procedures wherever applicable. Finally, alternate processes were designed incorporating the process objectives and best practices adopted elsewhere.

**c. Discussions with the Stakeholders**

The purpose of this step is to present the redesigned process to stakeholders and obtain their feedback on the recommendations. This step involves iterative discussions with the stakeholders, to ensure that required clarifications are provided along with supporting documentation and perceived benefits of the redesigned process. The processes proposed in the volume II of the report has been finalized after rigorous discussions with the stake holders and these have been redesigned in sync with the departmental acceptance level of the new processes, Although several recommendations have been made to the departments (which also have been mentioned in the report) but the approved reengineered process have been detailed in the report. The acceptance of the processes has also been attached as annexure in Volume II.

**d. Develop the performance measures**

The purpose of this step is to develop measurable indicators for each of the redesigned process, as they help decision makers examine the outcome of various measured processes and strategies

## Business Process Re-engineering

## 2.0 Business Process Re-engineering

### 2.1 Service Framework

#### Overview of the component based approach

As a part of the business process re-engineering, similar activities have been grouped for process normalization and redundant activities have been proposed for removal.

Aspects that needed prime attention include:

- Service definitions, service organisation, service personnel;
- Effectiveness and efficiency of provided services;
- Service Levels

This component based approach was discussed on 7<sup>th</sup> Nov 2007 workshop, wherein 11 components were identified. These 11 components are the basic building blocks of the entire BPR framework and the proposed "To Be" envisioning. These components are listed as follows:

- Information
- Forms availability
- Application receipt
- Payments
- Verification (physical)
- Verification (non-physical)
- Rejection
- Approval/signing of approver
- Delivery / collection
- Status
- Monitoring (MIS)
- Workflow

## Process Flow

The revised process flow has been explained below:

- The citizen goes to the nearest CSC/ e-District centre
- The citizen validates his identity to the kiosk owner
- The citizen makes a request for a service to the operator
- Kiosk operator will login to the e-District portal
- The kiosk operator will access the relevant department's application on the portal.
- The operator will fill up the online form, take a print out of the filled up form and asks the citizen to verify the details
- The citizen examines the printed form and verifies the details.
- The citizen then manually signs or puts his thumb impression on the printed out form
- The operator digitally signs the online application and submits it.
- The operator also issues a copy of the application to the citizen and an acknowledgement receipt which will include the date of delivery and a unique receipt number
- The operator then dispatches the entire citizen signed printed out forms to the District Administration office
- The process owner receives the online application and starts processing it.
- The process owner will first verify the details in the e-District database.
- If the details are found to be correct, he approves the application by digitally signing it and submits it back to the e-District Application.
- If the details are not found in the e-District database, he orders a physical verification.
- The field officer assigned for physical verification will verify and record all the details required in the e-District database for all the family members in one visit
- The field officer then visit a computer centre at the Tehsil or block office, updates the data in the e-District database and digitally signs it
- The process owner revalidates the details in the database against the application and either approves or rejects the request.
- The process owner also issues the relevant document or a reason for rejection using his digital signature
- The citizen visits the kiosk on the specified date of delivery and requests for the document

- The operator logs into the e-District portal and retrieves the digitally signed document, prints it out and stamps it with his seal
- The printed out document will have a unique ID and a website address to verify its authenticity
- The applicant proves his identity and receives the document 😊



### Major Challenges for process improvement

Based on the proposed process flow, certain key challenges have been identified and had been discussed both with the departments and the State advisory committee. The envisaged solution to the concerns has also been detailed in this section. Suggested solutions for each of the identified challenges have been presented in the report.

1. **E-Disha:** The e-Disha project implemented by NIC is already operational in the district offices of Haryana and is being used for delivery of G2C services. However the level of implementation is at varying degrees in each district. There are some overlaps in the services that are being delivered under the e-Disha and e-District, considering the already developed applications for the same services identified under both the projects state has already selected NIC Haryana as the implimentation partner. The gaps under the two projects has already been identified and has been deatiled below:

Services provided	eDisha Kendra	eDistrict (Proposed)	Remarks and Gaps Identified
Nakal of Land Records	Y	Y	1. NIC has already developed an application which is functional at the e-Disha kendra, which can be further modified to cater the work flow and providing the digitally signed certificates.
<b>Certificates</b>			
SC, BC, Income, Resident, Rural Area.	Y	Y	1. In the application software developed by NIC there was a provision to accept the application after the application is duly attested by concerned Patwari/ Sarpanch/Lambardar or E.O/Secretary/MC of the concerned area where as under the approved To-BE process the application can be accepted without verification and the verifying officer will have to digitaly verify the same so provision for verification by the concerned officer has to be made after the receipt of application.

			<p>2. Earlier certificates were issued and printed once they were duly signed by the concerned Authority but in the proposed process CSC operator will be authorised to print the digitally signed certificate under his stamp and signature.</p> <p>3. The authenticity of the certificate can be verified any time on line using the certificate number as done previously</p> <p>4. As per the auto escalation matrix proposed and approved by the department's intimation will be sent to the next level. The provision for the same is to be made in the existing application.</p> <p>5. Provision for logging into the application using Biometrics has to be made.</p>
Birth, Death Registration			<p>1. Earlier in existing application there was provision to issue certificate to the citizen only in case the data is available in database created by the registration authority. In the proposed To-Be process provision has to be made for delayed registration where in</p> <ul style="list-style-type: none"> <li>a. The birth/ death is being registered 30 days &lt; DOB &lt; 1Year and the issuing authority is District Registrar.</li> <li>b. The birth/death is being registered 1 year &lt; DOB&gt; 1.1.1990 and the issuing authority is SDM</li> <li>c. The birth/death is being registered DOB&lt; 1.1.1990 and the issuing authority is SDM</li> </ul>

			<ol style="list-style-type: none"> <li>2. The provision for workflow based application has to be built in the current birth and death registration application.</li> <li>3. Earlier certificates were issued and printed once they were duly signed by the concerned Authority but in the proposed process CSC operator will be authorised to print the digitally signed certificate under his stamp and signature.</li> <li>4. The authenticity of the certificate can be verified any time on line using the certificate number as done previously</li> <li>5. As per the auto escalation matrix proposed and approved by the department's intimation will be sent to the next level. The provision for the same is to be made in the existing application.</li> <li>6. Provision for logging into the application using Biometrics has to be made.</li> <li>7. The birth and death database has to be created at state level</li> </ol>
Handicap			<ol style="list-style-type: none"> <li>1. In existing application citizen used to submit his application at e-Disha center and a date was given to the same for appearing before medical board, the certificate was issued by the medical board whereas in the proposed TO-BE process the citizen will visit the CMO office on days fixed by the department and gets a digitally signed certificate from Civil Surgeon.</li> </ol>
<b>Social Welfare Scheme</b>			
Old Age Pension	Y	Y	This application has to develop from the

			scratch as per the proposed TO-BE process.
Widow Pension			This application has to develop from the scratch as per the proposed TO-BE process.
Handicapped Pension			This application has to develop from the scratch as per the proposed TO-BE process.
Ladli Scheme			Only provision for Application acceptance and verious MIS reports has been prepared, the work flow is yet to be built in as per the proposed TO-BE process.
<b>RTI</b>			
Receipt of Application	Y	Y	1. The application has been developed but following changes has to be incoporated as per the proposed TO-BE processes <ol style="list-style-type: none"> <li>a. work flow has to be changed for forwarding the application by CSC to the PIO / APIO</li> <li>b. Provision for digital signature and biometrics has to be provided in the application</li> </ol>
<b>Grievance</b>			
Receipt Of Application	Y	Y	1. GOI is in process of development of a application for the same for Haryana as piolt state.

2. **Front ending and institutional mechanisms:** This also brings in another important aspect with regard to deciding on the continuation of e-Disha counters for service delivery. It may be noted that there are a significant number of employees in the eDisha centers who operate the counters as well as manage the back end software applications. After the detailed discussion with the State representative it has been decided that the e-Disha centers may be used as the frontend for receipt of applications and services delivry centers along with the CSC centers. The backend automization will be achieved by implimenting the e-District project whereas the fron end model may be retained as per the e-Disha. The existing e-Disha Kendra

may be treated as e-District centers at the district level which will inturn benefit the costing of the project.

3. **Authentication mechanisms:** PKI Digital signatures (Class '2') , Smart Card and Biometrics have been suggested letar in the report for loggin into the system as an ideal senario but after adequate research it was found that Digital Signatures and the Biometrics are isolated technolgies and can't be used on the same platform. It has been submitted that to maintain the authenticity of the user the below mentioned practices may be adopted:

- i. The user must be allowed to log in to the e-district portal only when his boimetiric authenticity is established.
- ii. The digital signatures made available to the authorities will only be used for signing purposes once the user is logged in

Furthur to the above said it has been decided that the issuance of the digital signature will be handeled by the NIC.

4. **Accounting and reconciliation process:** The accounting and reconsiliation will be limited to the payment made against the service fee and bills, The agencies responsible for CSC's operation will under go a tripartite aggrement between the concern line department and Hartron and will be responsible for fee/ Bill collection process. Hence the CSC operator will be authorized to collect the fee / Bill on behalf of the department and a daily MIS will be generated regarding the money collected. Further to the above said the application already developed by NIC for the subject can be integrated with the e-District portal.

5. Authentication mechanism for service delivery Kiosk and Citizen

6. Usage of kiosk operator's Digital signature for submission of the digital form.

7. Provision for allowing decisions to be made based on the database. Databases that will be used for verification is EDD. This will be formed incrementally and gradually. The field of the EDD will be derived from below mentioned databases

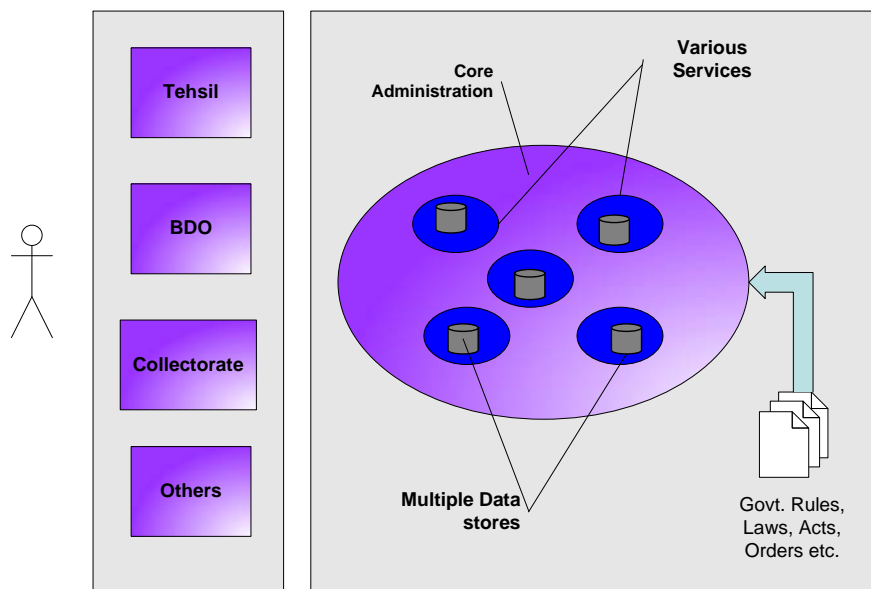
- Ration Card (Initial Database)
- BPL list
- Electoral Database
- Land Records
- CMO data base

- Social Welfare Database
8. Delivery of service based on e-district database (No supporting document to be submitted at the time of application)
  9. Self declaration to be substituted for affidavits
  10. 100% verification of all the fields of the e-district database for the first time  
Delivery Mechanism- digitally signed document with a unique number and mentioning the URL where the contents can be verified will be issued.

## 2.2 Component Based Approach

In the current scenario, the service delivery framework of the District Administration is tightly coupled with the core administration because of which any changes introduced into the service delivery mechanism trigger several more changes within the Administration making the implementation of the change difficult. Moreover, due to the lack of inter-linking between the departments each service has its own manual or digital database which leads to repeated verification of the citizen based on the service requested and generation of duplicate and redundant data. In essence, the current service delivery mechanism is department centric wherein the citizen approaches various departments to avail services.

A schematic representation of the current scenario is:



A service oriented architecture based approach has been adopted for developing the framework for e-district to introduce flexibility in the service delivery mechanism. This architecture decouples the core administration, decision making and each aspect of the service delivery mechanism into distinct components. Based on this approach, the proposed e-District service delivery mechanism has been divided into 11 components. These 11 components form the basic building blocks of the entire BPR framework and the proposed "To Be" envisioning.

Further, the 11 components have been broadly categorized into customer centric elements if the components require citizen interface and department centric elements if the components define the departmental processes.

The customer centric elements include the following service components:

- Information
- Form availability
- Application receipt
- Payment
- Status
- Delivery / collection

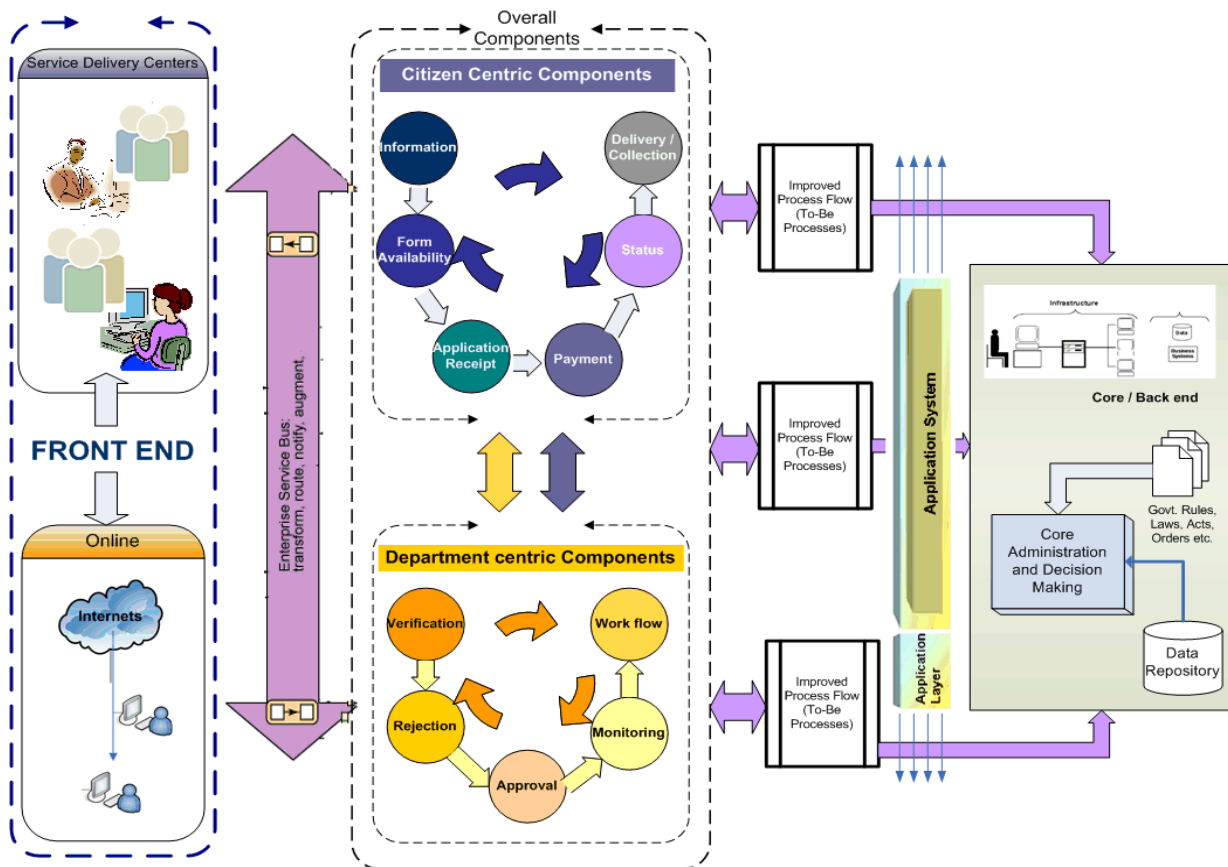
The Department centric element includes the following service components:

- Verification (physical and non physical)
- Rejection
- Approval
- Monitoring
- Workflow

The framework is proposed to include front end for the e-District application, enterprise application layer, service components, channels of delivery, integrated 'To-Be' processes, application layer and back end as the critical elements of the model. These elements provides for allow comprehensive functionality to proposed solution for the e-District.



A schematic overview of the overall BPR framework is shown below:



Streamlining of the front end, channels of delivery, service components and the 'To-Be' process will ensure a comprehensive service delivery mechanism for a more efficient delivery of services to the citizens. Further, it will improve the efficiency of the service delivery at the departmental level but also aid and assist in monitoring and reporting of the services. The proposed architecture has been detailed below.

### Front End

In the framework, front end has been envisaged to provide a single window service delivery channel for the citizen from where the citizen can request for a service and also receive the deliverable duly signed by the respective authority.

To facilitate 'Anytime Anywhere' accessibility and to ensure convenience to the citizen, two delivery channels have been proposed -

1. Online / Web Based
2. Service Delivery Centers (Common Service Center, BDO, Tehsil Office etc.)

### **Enterprise Application Layer**

The enterprise application layer is proposed to integrate the front end with the service delivery components through a secured gateway. The gateway will ensure standard based interoperability between various departmental applications at the back end and connect the CSCs and other channels of delivery at the front end. Acting as the nerve centre, the gateways would handle a large number of transactions across the entire network; provide a common set of specifications and a single point access for departments. Such an infrastructure would also facilitate inter-departmental working in a coordinated and synchronized manner.

This enterprise application layer will grant free access to the citizens for information related services, form availability, status tracking and authentication of the issued documents as defined under the application. A central message processing mechanism would also help in tracking all the transactions of the Government.

### **Service Components**

The service components are the critical elements of the proposed model. These elements define the way the way in which the service request will be entertained, processed and finally delivered back to the applicant. The service components include the 11 service components which have been proposed for the e-district application.

These components are envisaged to handle all functionalities of the proposed e-District application.

Detailing of all the components has been done in the later section of the report where the definition, purpose and objective, citizen and departmental significance, proposed channel of delivery, etc have been discussed.

### **Channels of delivery**

The proposed e-district framework has channel of delivery as an essential element which will enable the component to take up the defined route for input as well as output from the application. Some of the envisaged channels of delivery include the following -

1. Common Service Centers
2. Block Development Office
3. Tehsil Office
4. Integrated Voice Response System (IVRS)
5. Short Messaging Service (SMS)
6. Online (web based service)
7. Others - external entities like bank, etc

It is envisaged that multiple channels of delivery will help in providing accessibility to the citizens for availing various services.

#### **To-Be Processes**

The proposed e-district application will have embedded improved To-Be processes as the core mechanism to processing the service requests. These processes will detail out the optimum way by which the service request will be processed and finally delivered to the applicant. The proposed 'To-Be' processes will define the work flow, the roles and responsibilities of the service personnel - process owners, main and participating actors, information and data flow, decision points, starting and completion criteria, constituent activities, rules and regulations for the actors, workflow , service levels etc.

#### **Application Layer**

Application layer will be the technology within which the To-Be processes will be embedded. This layer would define all the functionality and work flow of service delivery and contains all the possible logics based on acts, rules, government orders, departmental orders, etc. This layer will contain the defined way through which the user can interact with the application - provide required input to the system and get output from the system. Also, this backend supports an intelligent Management Information System (MIS) so as to perform the defined functionality for monitoring and reporting associated with the selected services.

Additionally, this layer would interact directly with the application process and perform common application services based on the service request. It will also ensure that effective communication between all the components in a network is possible.

**Back End**

The back end of the proposed e-district application is the core decision making body of the service delivery mechanism. It includes the District Administration and the State Government. The decision making body shall only focus on the decision making ability of the concerned department head and other government officers in performance of their delegated responsibilities.

The data storage and handling will also be a backend task as defined by the system in specified structure.

**Advantages of proposed service component based architecture:**

- Decouples the services from the Core Administration allowing the service delivery mechanisms to incorporate changes without triggering changes in Core Processes and the District Administration.
- Introduces one comprehensive data repository ensuring :
  - Reduced duplication of effort
  - Removal of redundancy from the processes
  - Cross verification of information
  - Easy access to inter-departmental data
  - Reduced requirements for verification
- Facilitates independent focus on Core Administration and the Services introducing the following features in the administration organization :
  - Scope for innovations
  - Reform friendly

## 2.3 Service Levels

Service levels define the common understanding about the time taken for the delivery of services. They may also specify the assigned priorities, levels of availability, serviceability, performance and operations for each service. Along with an understanding of the Business Process Reengineering, design of To-Be processes and the BPR framework requires the proposed service levels to be defined clearly.

The e-District Guidelines clearly stress on establishing the service levels:

*“The State shall prescribe the service levels for each of the services identified under the project”.*

The service levels have been proposed for each of the services within all the category of services under e-District based on the envisaged business process re-engineering framework and the overall technology architecture of the proposed service delivery mechanism. As a way forward, the current processes have been benchmarked against the relevant best practices and the existing service levels are compared with the targeted ones. These studies help in identifying the gap between the targeted service delivery envisaged and the existing scenario. This analysis will guide the redesign or re-engineering of the pertinent processes.

The factors and dependencies that have been taken into consideration for proposing these service levels are:

- Type of verification required
- Modes of authentication of the deliverable
- Process Re-Engineering

### Verification

The verification process can be classified into two categories based on the sources and modes of verification:

#### *Physical Verification*

Physical verification involves the traditional method of verification which is currently in practice. However, no service levels have been assured to the citizens for the completion of physical verification.

As a way forward, the verification process has been defined and outlined to meet the targeted service level of 5 days. The Patwari would visit the Tehsil /CSC twice a week, implying that the collection of request would take 2 days at best, the field verification would require 2 more days and the verification report can be submitted in another 2 days. Since physical verification would be required for only those applications which cannot be verified through databases or critical documents, the relative number of request would be fewer which would also help in meeting the target service levels.

### ***Non-Physical Verification***

Non-physical verification would involve verification through vital databases like the digitized Social Welfare database, Ration Card database, Electoral database, driving license database etc. This would reduce the verification time to 1 day.

### **Modes of Authentication of Deliverable**

The service levels vary based on the modes of authentication of the end deliverable. For instance, a digitally signed document, if made acceptable can be delivered to the citizen within 1 day. However, a manually authenticated document would require 2 days taking into account the time taken for the physical movement of the document.

### **Process Re-Engineering**

Once the processes are re-engineered and workflows are defined, significant time can be reduced for the delivery of the service. For instance, a payment gateway at the CSC for the payment of fee, Taxes etc. would significantly save the taxpayer the time and effort involved in the payment of taxes.

The below mentioned service levels have been finalized based on the Annexure III of the e-District Guidelines and the discussion held with the State Government representatives at Chandigarh on March 26, 2009.

COMPONENTS	SERVICE	SERVICE LEVEL	MODE OF VERIFICATION
Caste Certificate	Obtaining Caste Certificate	2 Days	From eDistrict database, Automated workflow
		7 Days	Physical Verification
Birth Certificate	Obtaining Birth Certificate	2 Days	From eDistrict database, Automated workflow, Certificate from the Medical Institution
		7 Days	Physical Verification
Death Certificate	Obtaining Death Certificate	2 Days	From eDistrict database, Automated workflow, Certificate from the Medical Institution
		7 Days	Physical Verification
Income Certificate	Obtaining Income Certificate	2 Days	Digitized BPL List, Khatauni database
		7 Days	Physical Verification
Domicile Certificate	Obtaining Domicile Certificate	2 Days	From eDistrict database, Automated workflow
		7 Days	Physical Verification

COMPONENTS	SERVICE	SERVICE LEVEL	MODE OF VERIFICATION
Old Age, Widow, Handicapped Pension	Sanctioning & Approval	2 Month	Increased committee meetings
	Disbursement	2 Month	None
Copy of Nakal	Issuing of Nakal copy	Online	Unsigned
		2 Days	Signed
Employment Exchange	Registration	Online	Online Access
	Status of Job	Online	Online Access
Agriculture related services	Issuance of Licenses for dealer of Seeds, fertilizer & pesticides	7 Days	Physical Verification
	Renewal of Licenses for dealer of Seeds, fertilizer & pesticides	2 Days	Digitized Database
Revenue Court	Daily Cause list	Online	Will include details upto previous working day
	Copy of final order	Online	Online Access



COMPONENTS	SERVICE	SERVICE LEVEL	MODE OF VERIFICATION
	Case Status Tracking	Online 7 Days	Online Access Physical Verification
Grievance	Information dissemination	Online	Online Access
	Filing of Grievance	Online	Online Access
	Status Tracking	Online	Online Access
RTI	Filing fo RTI Application	Online	Online Access
Recovery Certificate	Issue of RC	Online	Digital Signature, Online Access
	Monitoring of RC	Online	Online Access
	Status Tracking	Online	Online Access

# Service Components

### 3.0 Service components

#### 3.1 Information Dissemination component

The information component is envisaged for handling the dissemination of information only since the lack of information was found to be a key impediment in availing of services on time and with minimum effort. It has been observed that lack of information regarding the processes and the supporting documents that needed to be submitted along with the application are two of the prime factors stalling the submission of application. Similarly, lack of awareness about the defined service levels among the citizens results in no appropriate action being initiated even in case of deviation.

#### Citizen Relevance

- Expedite the application procedure since all the requirements would be clearly indicated to the applicant.
- Reduce the effort required for an applicant to avail a service by eliminating the need for making multiple visits to the service centers for collecting information regarding the service owners, the supporting documents etc.
- Aids in disseminating information regarding any citizen welfare centric government schemes.

The channels of delivery for this component and the centres of responsibility for each of those channels are as enumerated below:

Channel of Delivery	Description
Online	All the relevant information will be posted online on the website which can be accessed from anywhere
Interactive Voice Response System (IVRS)	A telephonic service which would give all the details regarding each service

Public Display	Boards with all the information painted on them will be displayed at the village, block, CSC and Tehsil levels

The key challenges seen for this component relates to information originating at both state level and district level and their integration so as to account for consolidated view of service delivery of the component. A responsibility center for updating, validating and authenticating information needs to be stated. It also means that provision for updating and uploading the information from the district level needs to be made in the e-district application.

#### Legal challenges:

- Legality of information provided on the website?

The NIC Office or the District Information Officer will accept only duly signed documents from the authorized persons in various departments for updating on the website. We can also have an appropriate disclaimer on the home page of the website.

#### Process related challenges:

- Who will be responsible for the content?

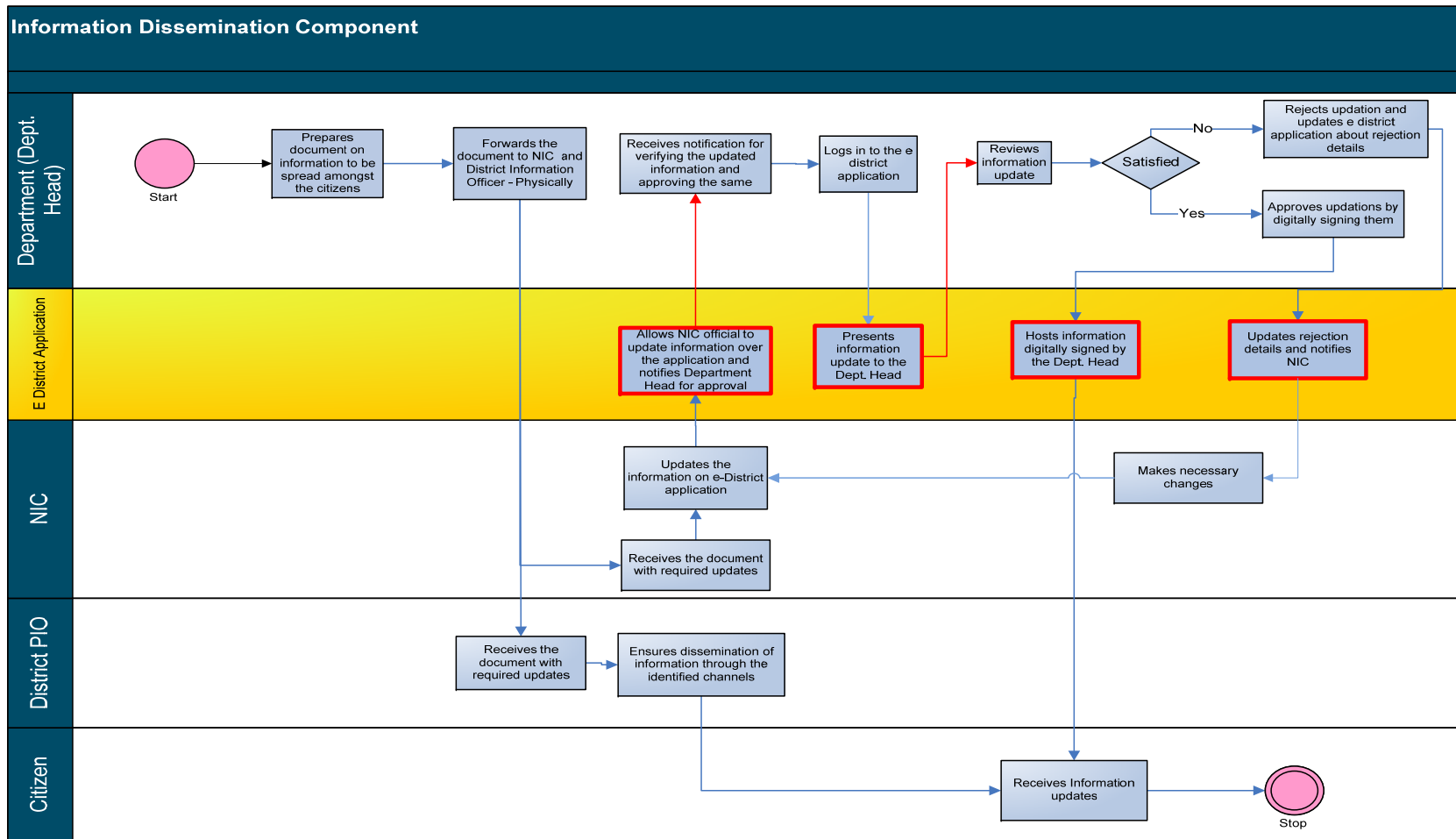
The various head of departments or the authorized persons in those departments will draft the content and be responsible for the same.

- How will the updates to the content be managed?

The following process flow demonstrates how the updates to the content would be managed.

#### Technology related challenges:

- None



Sr.	Process Detail	Responsibility
1.	The department head of the department which wants to disseminate information prepares a base document containing the relevant information.	Department
2.	<p>Department identifies the source through which it wants to disseminate information which can be either :</p> <ul style="list-style-type: none"> <li>▪ e-District website</li> <li>▪ Public Display</li> <li>▪ Both</li> </ul> <p>The department then sends the document prepared by its officials to NIC officials if they identify e district website as a source of information dissemination.</p> <p>Or to the District Information Officer if the department identifies public display as the medium of information dissemination.</p> <p>The department can also identify both the above methods as sources of information dissemination.</p>	Department
3	In case when the department identifies e district or other government website as source of information dissemination then the NIC officials receive the documentation regarding the information dissemination from the particular department.	NIC Officials
4	The NIC official then updates the information over the e-district application and puts his digital signature on the updation.	NIC Officials
5	e District application hosts the information updated by the NIC officials and automatically generates an email notifying the Department Head of the particular department to review the information	E District Application
6	Department head receives notification from the e District application about the information updation	Department Head
7	Department head logs in to the e district application through his user id and password and looks for particular update on the e district application.	Department Head

8	e-District application presents the particular piece of information to the Department Head.	E-District Application
9	<p>The Department head reviews the information updated over the e district application and takes the following decision:</p> <p>i) If the Department Head finds that the information updated over the e District application is correct in all manners and can be catered to the citizens then he approves the information update by using his digital signature.</p> <p>ii) If the Department Head feels that the information hosted over the e District application is not sufficient, incomplete or not passing on the message clearly. Then he can reject the information update and ask the NIC to revise the information update along with providing changes required in the current information update.</p>	Department Head
10	<p>i) In case of <b>acceptance</b> of Department Head e District application hosts the information over it digitally signed by the Department Head.</p> <p>ii) In case of <b>rejection</b> the e district application notifies rejection details to NIC</p>	E-District Application
11	In case of <b>rejection</b> NIC officials receives the notification and makes the necessary changes and updates the e district application	NIC Officials
12	In case the department wants to disseminate information through public display then the District Information Officer receives information document from the department head. The District Information officer then identifies the location as well as sources of information dissemination of public display. The DIO then disseminates the information through the identified sources.	District Information Officer
13	The Citizen can then obtain the information through which ever medium he wants to obtain such as i.e. either through public display or through the e district portal or both.	Citizen

S. No.	Functional Requirements - Information Dissemination Component
1.	Should allow only the NIC / Department officials to update information obtained from the departments
2.	Should provide detailed information on the following to the user: <ul style="list-style-type: none"> <li>▪ Scheme Name:</li> <li>▪ Eligibility Criteria:</li> <li>▪ Nodes of obtaining service:</li> <li>▪ Application Fees:</li> <li>▪ Grievance filing procedure:</li> <li>▪ Authorities to contact:</li> <li>▪ Forms and documents required:</li> <li>▪ Other locations for obtaining detailed information</li> </ul>
3.	Should be able to add new information components besides the above
4.	Should be accessible to citizens, department officials, other government officials, e district centre operators, SCA
5.	The NIC should be able to update the document over the e district application but this information would not be viewable to the end user until the department head puts his digital signature verifying its authenticity and correctness
6.	Should not allow any un authorized user to upload information besides NIC officials
7.	Should have different presentation layer for each set of users i.e. Information seekers, updaters, approvers etc.
8.	Should notify the Department Head once the information is updated over the e application
9.	Should allow the Department Head to either approve or reject the information update
10.	Should update information over the e district application only after digital signatures of the department head has been put up on the information update
11.	Should ask for digital signature of the department head in case of rejection also
12.	Should ask for changes from the Dept Head desired in case of rejection by the department head
13.	Should notify the NIC officials both in case of acceptance or rejection of the information update
14.	Should allow only the NIC officials to make changes in the updated information hosted over the e district application



15.	Should request NIC official to put his digital signature after each updation
16.	Should have a counter at the bottom of the page to record the number of people hitting the website, this would prove beneficial in capturing the usefulness of information
17.	Should auto generate grievances in case of Department Head or NIC officials are not performing against their set SLAs
18.	The system should support multi-lingual interface (minimum Hindi and English) as per localization and language technology standards for National e-Governance plan defined in the e-District guidelines

### **3.2 Forms availability component**

Service inputs are accumulated with the aid of various Forms. Forms could be in physical or non-physical format. Forms in both formats consist of various fields of required information, which would be the basis for any process to be initiated. In physical format, form availability becomes an important consideration as this can depend on a variety of external factors. Lack of availability of forms would impede the process. Non-physical or electronic forms would address the lack of availability issue and would standardize the fields using a system approach.

Form availability would ensure that the services can be accessed. Forms once available with the appropriate fields will not only form the basis for accessing any particular service, but would also be used in creating an incremental database.

The forms component can only be filled by the CSC Operators moreover the forms in PDF format will be made available to the citizen and hand filled forms along with the documents may also be submitted at CSCs. The mentioned forms are not available to be filled by the citizen online.

The purpose of the element as envisaged in the proposed BPR framework has been listed below -

1. To make available the relevant form available for making service request for the selected services
2. To standardize the format for the form pertaining to selected services

#### **Citizen Relevance**

Easy availability of form at multiple locations and through multiple channels And standardized format of forms removing confusion of applicability and genuineness of form. The procedure envisaged has been explained below:

- i. The citizen goes to the nearest CSC/ e-District centre
- ii. The citizen makes a request for a service to the operator
- iii. CSC operator will login to the e-District portal
- iv. The CSC operator will access the relevant department's application on the portal.
- v. The operator will fill up the online form in consultation with the Applicant, take a print out of the filled up form and asks the citizen to verify the details
- vi. The citizen examines the printed form and verifies the details.
- vii. The citizen then manually signs or puts his thumb impression on the printed out form

- viii. The operator digitally signs the online application and submits it.
- ix. The operator also issues a copy of the application to the citizen and an acknowledgement receipt which will include the date of delivery and a unique receipt number

The Service wise request form has also been explained for every service in the To-Be report. It also indicates the fields required to be captured for the particular service.

CSC operator does not have the authority to reject a form unless the applicant is unable to furnish the mandatory details required for the initiation of service request at the CSC level. If the form has all the mandatory field filled by the applicant or it the same is provided to the CSC operator for filling the form on the portal the CSC Operator cannot reject / deny the request. Only competent authority can reject the application under the following circumstances as mentioned in the To-BE Report under the Rejection Component:

- i. Pre-defined requirement/eligibility not being met in the service request
- ii. Other reasons based on the discretion of the designated authority.

The forms will be validated by the Applicant (Citizen) him / herself. A printout of the filled form will be provided to the Applicant which needs to be signed by the Applicant. The same is mentioned under point no. vii above.

### **Channels of Delivery**

The channels of delivery for this service are:

Channels of Delivery	Description
Service Delivery Point (CSC / Block office /Tehsil office)	As defined in the CSC TOR
Online	Software application should integrate features for capturing required information for such transactions

The key challenges seen for this component relate to form availability and their integration so as to account for consolidated view of service delivery of the component.

#### **Legal challenges:**

- None

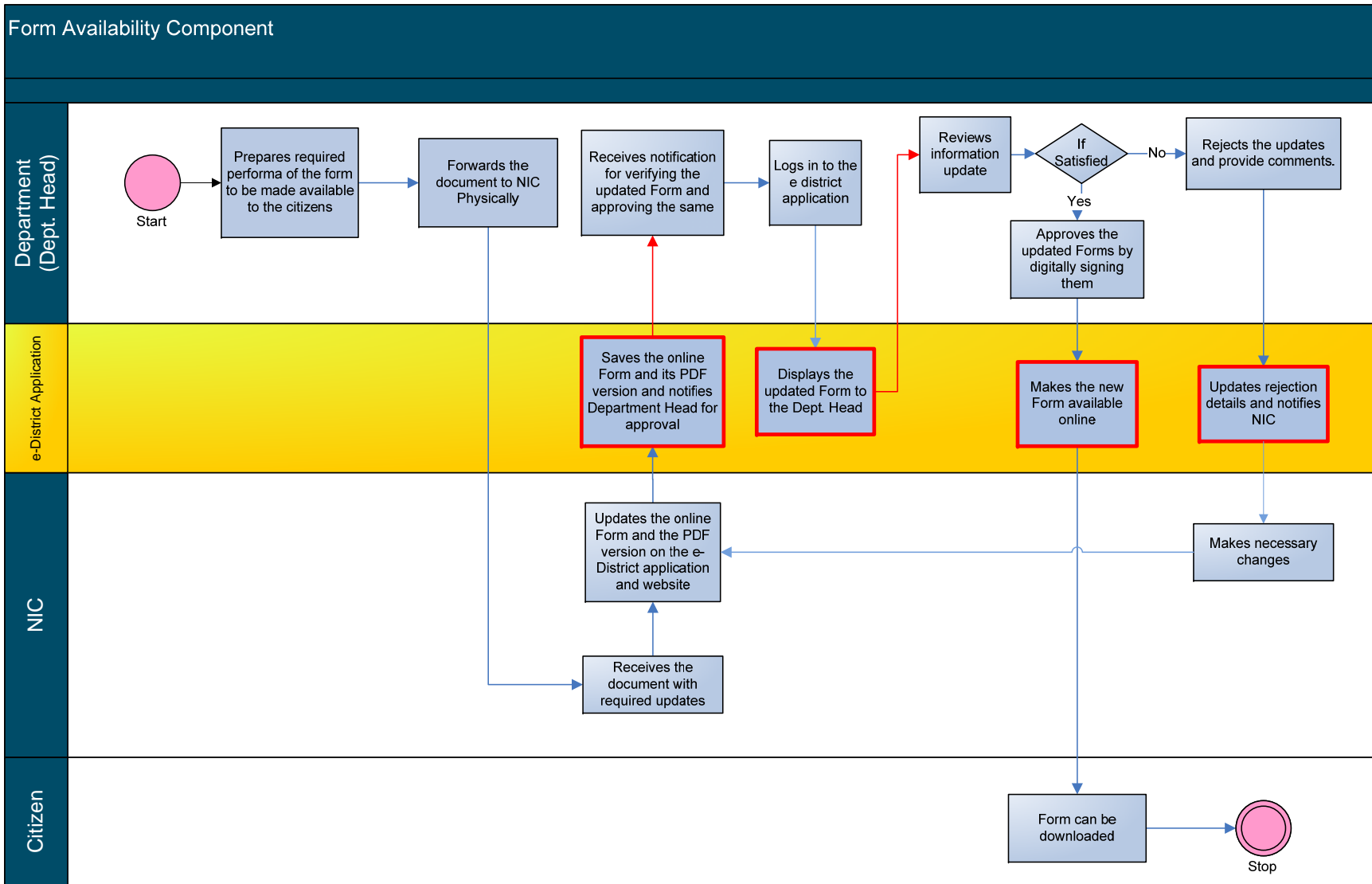
**Process related challenges:**

- How will it be ensured that only the latest forms are available?

Various head of departments or authorized persons of those departments will make sure that any change in the Performa of the form is immediately notified to the NIC DIO and the District Information Officer, who will then manage the updation of the form.

**Technology challenges:**

- None



Sr.	Process Detail	Responsibility
1	Performa of the required form is prepared	Respective department (Head of department, HoD)
2	Prepared performa is forwarded to the NIC office	Respective department (HoD)
3	The received performa and detail is updated on the e-District application (eDA) and portal in the PDF format	NIC Officials
4	Updated performa and details are saved in the system	eDA
5	e District application hosts the information updated by the NIC officials and automatically generates notification to the Department Head of the particular department to review the information	eDA
6	Department head receives notification from the e District application about the information update	Department Head
7	Department head logs in to the e district application through his/her user id and password and looks for particular update on the e district application	Department Head
8	e-District application presents the particular updated performa to the Department Head	E District Application
9	<p>The Department head reviews the performa updated over the e district application and takes the following decision:</p> <p>iii) If the Department Head finds that the performa updated over the e District application is correct in all manners, approval of the performa update is done and is digitally signed</p> <p>iv) If the Department Head feels that the performa hosted over the e District application is not sufficient, incomplete or ambiguous, he/she can reject the</p>	Department Head

	updated performa and ask the NIC to revise the format along with providing changes required in the current updated format	
10	<p>i) In case of <b>acceptance</b> of the updated form by Department Head, the same is hosted over the eDA portal</p> <p>ii) In case of <b>rejection</b> the e district application notifies rejection details to NIC</p>	E District Application
11	In case of <b>rejection</b> NIC officials receives the notification and makes the necessary changes in the performa and updates the e district application	NIC Officials
12	Latest form can be obtained through the eDA portal or at the CSC	Citizen

S.No	Functional Requirement Specification - Form Availability
1	The system should store all the service request form at predefined location for the selected services
2	The system should be able to retrieve service request form from the predefined location
3	The system should allow for service request form to be easily downloadable both through HTML and word format
4	The system should provide for printable version of the service request form
5	The system should give an error message in case it is not able to retrieve the application from the given location
6	The system should have a provision for uploading new version of the forms as and when it is required to change the version
7	The system should maintain the version control for the service request form
8	The system should have a security feature embedded for changing the version of the form and should allow only predefined process owners to change the form version
9	The system should maintain log for all version change with the details of the process owner making version change
10	The system should not allow to change the content of the form and should be in read only version
11	<p>The system should be able to make available service request form should be through</p> <ul style="list-style-type: none"> <li>• Online / website</li> <li>• CSC</li> </ul>
12	The system should allow for easy searching of the service request form
13	The system should allow for easy and user friendly layout for locating the service request form
14	The system should be able to export forms in multiple formats so as to ensure compatibility of forms
15	The system should have a life counter feature to keep track of number of forms being downloaded from the application
16	The system should support multi-lingual interface (minimum Hindi and English) as per localization and language technology standards for National e-Governance plan defined in the e-District guidelines



### 3.3 Application receipt Component

This Component will handle submission of the application. As the component exits operation, an acknowledgement would be generated for the applicant containing a unique reference ID for status tracking, date of application, department responsible, date of delivery, information about delivery channels, service fee receipt etc. The receipt also helps the applicant to track the status of the application with the help of the unique registration number provided with the receipt besides enabling the system to uniquely identify each and every application along with the candidate. According to BPR framework this receipt would be automatically generated by the system thus minimizing the duplication of effort and redundancy in the process.

#### Citizen Significance

1. Proof for service request being made by the citizen getting established

#### Channels of Delivery

The channel of delivery as envisaged for the service component is listed below in the table -

Channel of Delivery	
Channels of Delivery	Description
Service Delivery Point (CSC / Block office /tehsil office)	Service delivery point to register service request and provide a unique service request number against the service request made

The key challenges seen for this component relate to application receipt and their integration so as to account for consolidated view of service delivery of the component.

#### Legal challenges:

- Legal requirement of applicant's signature on the application form

This challenge can be managed by taking the applicant's signature or his thumb impression on a filled-up printed hard copy of the application form and then dispatching it to the district office.

- Legal issues in the Kiosk operator digitally signing the application on behalf of the applicant.

Changes to the State IT Act may be enacted to authorize the Kiosk operator to digitally sign the application on behalf of the applicant.

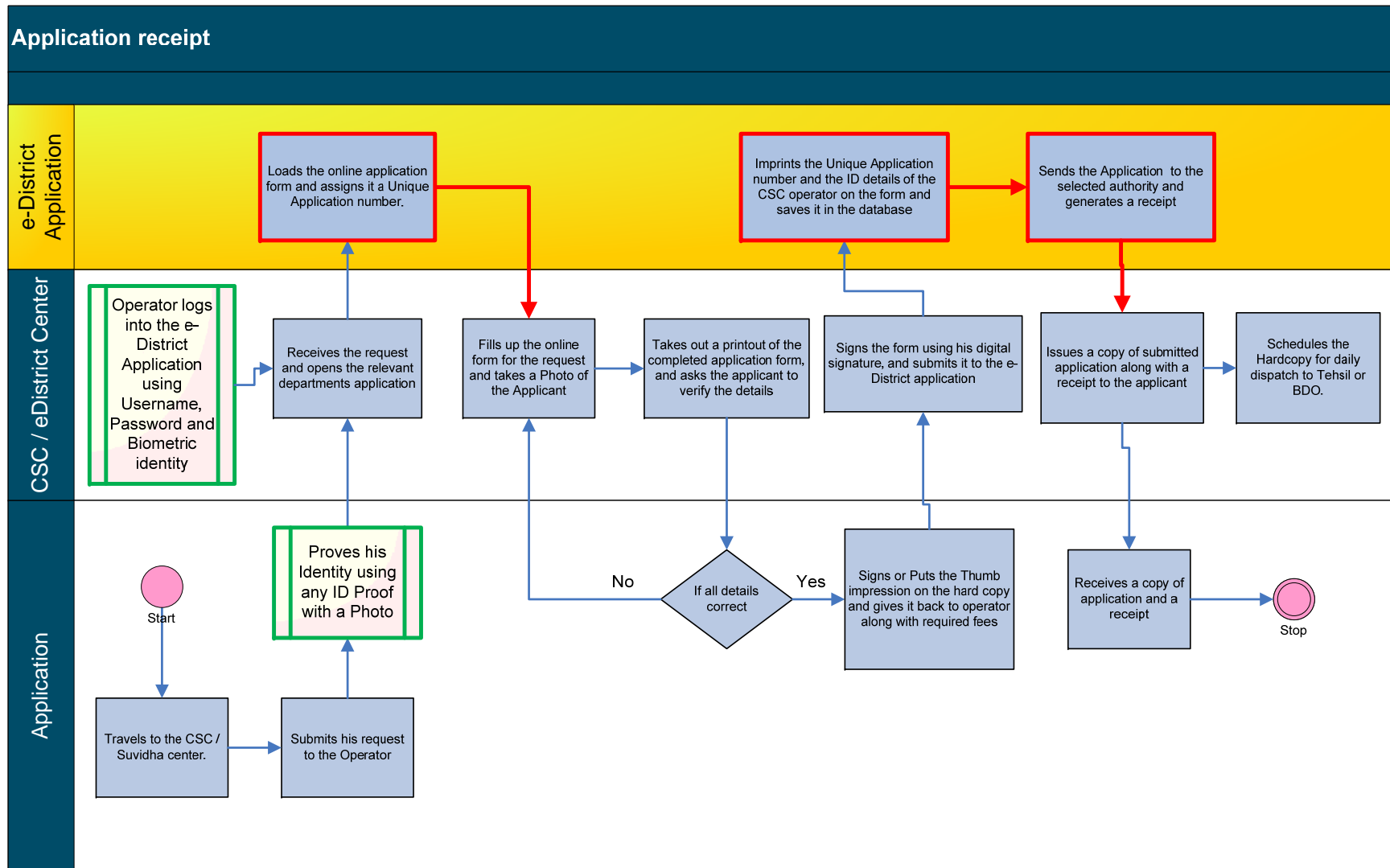
- Legal validity of acceptance of e-Forms

The draft policy on e-Forms is currently in its initial stage as the e-District guidelines. More information on the same is sought from the State.

**Process and Technology related challenges:**

- Authentication mechanism for the kiosk operator

The Kiosk operator would be required to establish his identity to the e-District Application by using strong authentication mechanism. The operator would require a UserID, Password and his Biometric information. The same is illustrated as a process flow below:



Sr.	Process Description	Responsibility Centre
1	The Applicant travels to the CSC or any e-District center/kiosk.	Applicant
2	The Applicant submits his request to the operator sitting at the CSC or the e-District kiosk. He may do this either by filling out a hardcopy of the form himself or by verbally requesting for a particular service and provided all details to the operator as he fills up the form on the applicant's behalf.	Applicant
3	The Applicant will prove his identity using any of the valid ID proofs issued by any Governmental agency, for example Voter ID card, PAN card etc.	Applicant
4	The operator Would log into the system using his username and password and authenticating his biometric identity to the system.	Center operator
5	The operator will check the ID proof provided by the applicant to ensure the identity of the applicant	Center operator
6	The operator will receive the application request and select the relevant department's section on the application.	Center operator
7	The e-District Application (eDA) would then load the requested service's Application Form and assigns it a Unique Application number	e-District Application (eDA)
8	The operator then fills up the online form on behalf of the applicant and takes a photograph of the applicant by a Webcam. This photo is attached to the Application Form.	Center operator
9	The operator then takes out a printout of the filled up Application form and asks the Applicant to verify the details mentioned on it.	Center operator
10	The Applicant inspects the details printed on the Form, and points out if there is any discrepancy	Applicant
11	If the Applicant wants something to be changed in the form, the operator will discard the Printed form and make the changes on the online form and repeat the process until the Applicant agrees with the printed copy.	Center operator
12	The Applicant, when satisfied with the contents of the printed Application Form, signs on it or puts his thumb impression on it, and hands it back to the operator along with copies of any required	Applicant

Sr.	Process Description	Responsibility Centre
	documents	
13	The operator on receiving a manually signed printed copy of the form and the copies of the documents, digitally signs the online form and submits the same	Center operator
14	The eDA Imprints the Unique Application number and the ID details of the CSC operator on the form and saves it in the database.	eDA
15	The eDA then sends or forwards the Application to the selected authority and generates a receipt for the Applicant	eDA
16	The operator takes a printout of the receipt and issues the same along with a copy of the application to the Applicant	Center operator
17	The Applicant receives the receipt and the printed copy of his application	Applicant
18	The operator schedules a Daily dispatch of the hard copies of the Application forms and the associated documents' copies to the respective department's office	Center operator

## Service Request Form - Application Receipt Component

The 'Home' page or the Main page after logging in will have multiple options for the operator / applicant to select. The operator should be able to load the Application Forms for any of the services being offered under the e-District project.

The operator / applicant will have the following Links and Sub-Links to choose from:

S.No	Fields Description of the form
	Certificates <ul style="list-style-type: none"> <li>• Caste Certificate</li> <li>• Domicile Certificate</li> <li>• Income Certificate</li> <li>• Handicapped Certificate</li> <li>• Birth Certificate</li> <li>• Death Certificate</li> <li>• Marriage Registration</li> <li>• Copy of Nakal</li> </ul>
	Revenue Court <ul style="list-style-type: none"> <li>Status of a case</li> <li>Cause list</li> <li>Final orders</li> </ul>
	Utilities <ul style="list-style-type: none"> <li>Electricity Bill</li> <li>Water Bill</li> </ul>
	Pensions <ul style="list-style-type: none"> <li>Old age pensions</li> <li>Widow pensions</li> <li>Handicapped pension</li> </ul>
	Dues and Recovery <ul style="list-style-type: none"> <li>Issuance a Recovery Certificate</li> <li>Status tracking of an Recovery Certificate</li> </ul>
	Agriculture Related services <ul style="list-style-type: none"> <li>Issuance of Licenses for Dealer of seeds, fertilizers &amp; pesticides.</li> </ul>

	Renewal of Licenses for Dealer of seeds, fertilizers & pesticides. Animal Insurance Scheme
	Grievances
	RTI Application

S. No.	Functional Requirements - Application Receipt component
1.	The System should enforce secure login as per the Login process, where the CSC or e-District center operator will have to authenticate his Username, Password and Biometric identity to access the Application home page.
2.	The System, on successful login, should display the Main page or the Home page of the Applications Services Request with links to various services as per the Service Request Form mentioned above.
3.	The System should be able to retrieve and load the online Application Form for the service as selected by the Applicant / Operator.
4.	The System should assign a Unique Application Number to every form.
5.	The System should allow the Operator / Applicant to take a printout of the form before submitting it.
6.	The System should allow editing of the details in the online Application form even after a printout has been taken.
7.	The System should allow the Operator / Applicant to attached any scanned documents, a photograph, or any other supplementary attachments as required with the Application Form
8.	The System should imprint the Unique Application Number and the ID details of the operator on the Application Form.
9.	The System should allow the operator to submit the Application Form online
10.	The System should enforce that the operator digitally signs the Application Form and all its associated attachments before accepting it for submission.
11.	The System must display a message for Successful or Unsuccessful submissions and it should log all such events.
12.	The System must refresh the page and Load a new Application form in case the previous submission attempt was unsuccessful.
13.	The System should save the Application Form and all attached documents into a Database.
14.	The System should be able to immediately electronically forward the



S. No.	Functional Requirements - Application Receipt component
	Application Form and the attachments and notify to the Process Owner, as identified in respective processes.
15.	The System should be able to generate a Receipt for the Applicant, and allow it to be printed.
16.	The system should support multilingual interface (minimum Hindi and English) as per Localization and Language Technology Standards for National e-Governance Plan defined in e-district guidelines.
17.	The e-District Application must support Digital Signatures of any of the Certifying Authorities registered under the Controller of Certifying Authorities, and must be modifiable as per the changes made by the respective Certifying Authorities on the structure of the Digital Signatures issued by them.
18.	The Digital Signatures used and the e-District Application must provide the Time Stamping of the act of Digitally Signing a document as mandated by the IT Act 2000.
19.	The Smart Card reader or the USB Token, carrying the Private/Secret Key, must be activated by a PIN / Password based system.

### 3.4 Payment component

Payment element of the proposed framework will define the overall process of payment for the selected services under the e-district project. It will account for the flow of funds from the collection points (i.e. CSC) to the concerned departments where the payment needs to be deposited.

The purpose of the element as envisaged in the proposed BPR framework has been listed below -

1. Provide secured and trusted process of payment collection and deposit in the concerned departmental head for the selected services
2. Ensure exact payment by the citizen as defined for the service

#### Citizen Significance

- Ease of payment through location in proximity
- Allow payment of prescribed amount by the citizen for which receipt is provided against the service request made at the service delivery centers (eg. CSC)
- allow citizen provision of including the payments made at other financial institution through the application

#### Channels of Delivery

The channels of delivery for payment elements as envisaged in the framework is given in the matrix below -

Channels of Delivery	Description
Service Delivery Point (CSC / Block office /Tehsil office)	As defined in the CSC TOR
Banks	Software application should integrate features for capturing required information for such transactions
Online	Software application should integrate features for capturing required information for such transactions

The key challenges seen for this component relate to payments and their integration so as to account for consolidated view of service delivery of the component.

**Legal challenges:**

- Authorization of Kiosk operator to collect fees for various services.

An agreement may have to be signed between the Kiosk operator/owner and the State Government which would have details of revenue sharing model. Utility services covered under e-District fall under the purview of Electricity & water dept. and the CSCs will need to be empowered to collect dues on their behalf

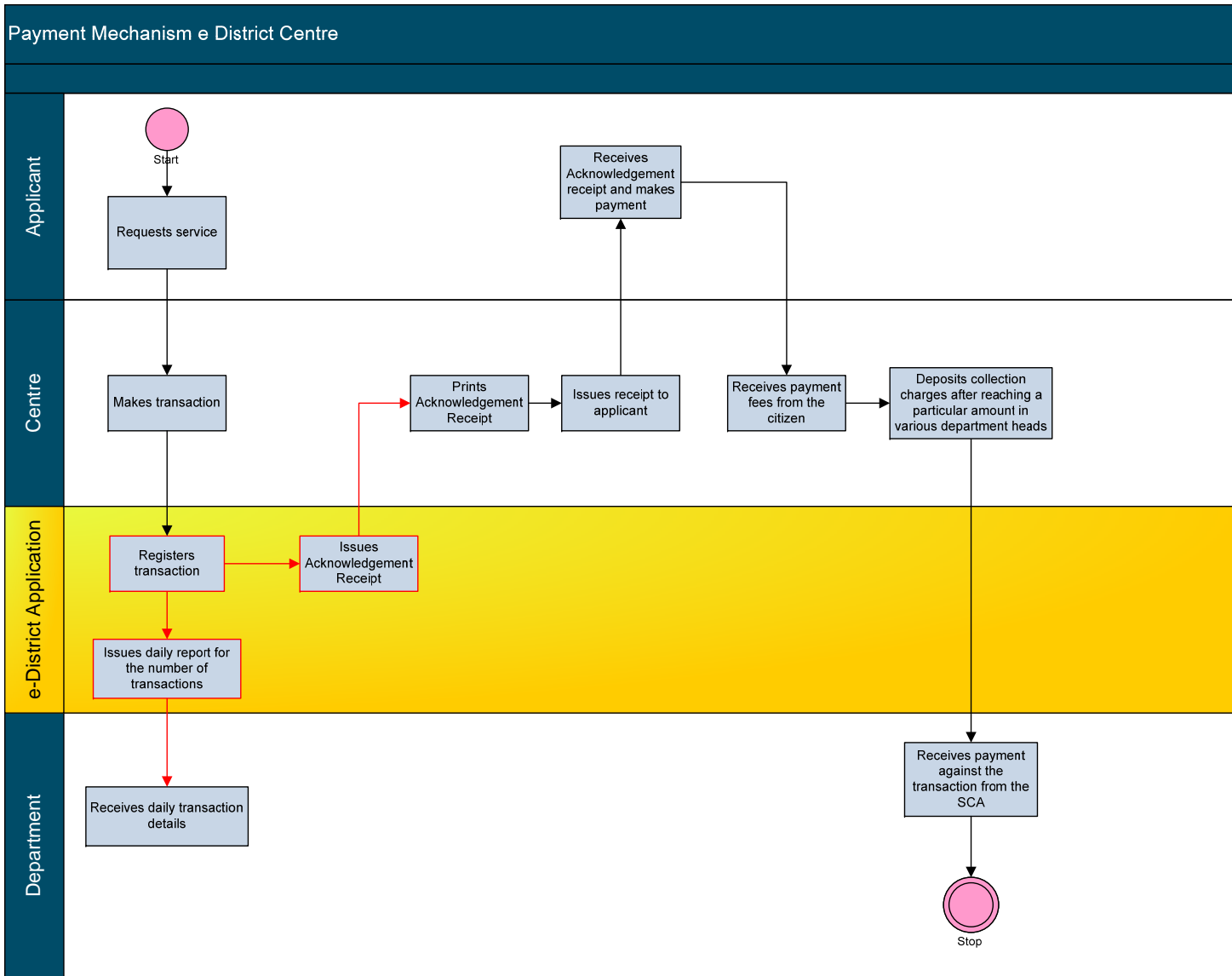
- Revenue sharing model for chargeable and non-chargeable services.

Case studies of other such projects are being researched to develop a revenue sharing model, which would incorporate such conditions. The process for such a payment mechanism may be divided into two categories. One would be for privately owned centers and the other would government own centers:

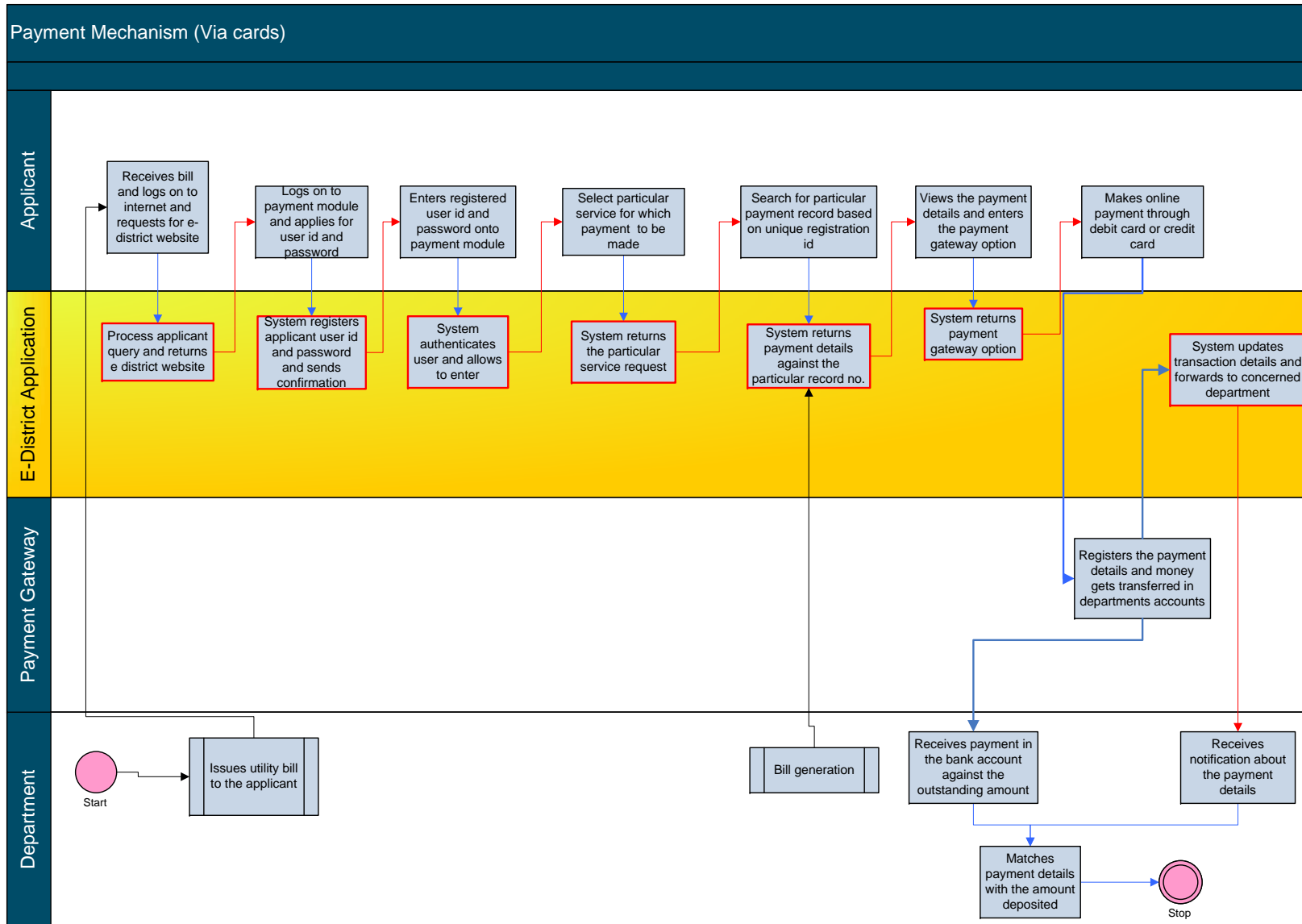
**Technology challenges:**

- A payment gateway would be required for online transfer of collected fees or charges.

Tie-ups with a bank with CBS can also be explored.







Sr.	Process Detail	Responsibility
<b>Payment Mechanism through e-district centre</b>		
1.	Applicant makes a service request at any of the e district centers	Applicant
2.	Centre operator receives the application request and makes the transaction at the e district application	Centre Operator
3.	The e District application registers the transaction	E District Application
4.	E district application issues an acknowledgement receipt against the transaction made specifying the applicant's name, registration number, details of service requested, date of issuance of receipt, expected date of receiving the service	E District Application
5.	The centre operator takes a printout of the acknowledgment receipt and request for payment from the citizen in lieu of the service	Centre Operator
6.	The Citizen makes the payment against the service availed to the centre operator	Applicant
7.	The Centre operator collects the service fees from the applicant	Centre Operator
8.	The centre operator deposits the collected amount under the different department heads in the department's accounts	Centre Operator
9.	The e district application sends the details of the daily transactions of each and every centre to the department	E District application
10.	Department receives payment from the e district centre and matches the transaction details with the collected amount deposited by the kiosk operator	Department
<b>Payment Mechanism through Financial Instrument (Credit/Debit cards)</b>		
1	Department issues utility bill to the applicant	Department
2	Applicant receives utility bill and logs onto internet and request for e-district website	Applicant
3	EDA process applicant query and returns e-district website	E-district application

4	Applicant logs onto payment module section and applies for UserID and password	Applicant
5	E-district application registers applicant details and creates new UserID and password. Upon creation, the EDA sends confirmation to user for successful creation of UserID	E-district application
6	Applicant enters registered UserID and password onto payment module section	Applicant
7	E-district application verifies user id and password. Upon verification, system allows authenticate user to enter into individual payment service record.	E-district application
8	Applicant would select payment details for which payment is due	Applicant
9	Upon receiving applicant request, e-district application would return the payment details for which payment is due	E-district application
10	Applicant would search his transaction details based on his unique bill no printed on his utility bill	Applicant
11	E-district application shows the payment details based on the applicant query (utility bill no)	E-district application
12	The payment details are shown onto e-district application based on the bill generation by concerned department. The department would update individual payment service utility record with following details <ul style="list-style-type: none"> <li>▪ Utility bill no</li> <li>▪ Name</li> <li>▪ Amount</li> </ul>	department
13	Applicant view the payment details generated for the particular bill and click to enter into payment gateway option	Applicant
14	E-district application returns the particular payment gateway option selected by the applicant	E-district application



15	Applicant fills the detail of financial instrument (credit or debit card) being used for making the payment	Applicant
16	Payment gateway registers the payment details submitted by applicant. The applicant account is debited and simultaneously credited into government account. Upon successful transaction, e-district application is updated	Payment gateway
17	E-district application updates individual payment service record and notifies concerned department about transaction details	E-district application
18	The concerned department receives notification and payment amount. The department verifies the transaction details submitted by applicant	Department

Sr.	Functional Requirement Specifications - Payment through e-district centre
1	The system should provide for and allow financial transaction functions
2	The system should check for all details of the service request form before initiating the payment
3	The system should enable the payment option only when all the fields of service request forms are filled
4	The system should return back and highlight the field which have inconsistencies / error for user to rectify the error
5	The system should retain all the information of the service request form besides those having inconsistencies
6	The system should return back after successful checking of the fields with the prompt of confirmation to open the payment page
7	The system should open a new page for recording payment details against the service request
8	<p>The system should allow payment to be registered on the service application request against the following -</p> <ul style="list-style-type: none"> <li>▪ Payment against the service</li> <li>▪ Payment against the dues / payments as defined under service charter of the specific service</li> </ul>
9	The system should record and maintain all details of payment against a unique service application number
10	The system should be able to maintain all the payment records in a database and retrieve the same as and when record
11	The system should be able to open a page with declaration on successful payment output
12	The system should be able to record specific payment details on the service request form after successful payment has been made
13	The system should be such that it should allow for part payment function
14	<p>The system should be able to retrieve information of first part payment during the final delivery of service output for final payment as per the overall payment specified for service request</p> <ul style="list-style-type: none"> <li>• Unique application number for requested service</li> <li>• CSC details and unique number for CSC</li> </ul>
15	The system should be able follow the payment cycle as mentioned above

	for the final payment also
16	The system should be able to maintain all records of part payments as well as consolidated payment amount against the service request
17	The system should support multi-lingual interface (minimum Hindi and English) as per localization and language technology standards for National e-Governance plan defined in the e-District guidelines
<b>Only for utility services (bill payments, etc.)</b>	
1	The system should allow transaction through approved financial instruments <ul style="list-style-type: none"> <li>▪ Credit cards</li> <li>▪ Debit cards</li> </ul>
2	On-line payment - The System should support online payment, including the following fields: <ul style="list-style-type: none"> <li>▪ Facilitate payment against dues and recoveries online through a payment gateway interface with a bank.</li> <li>▪ Allow the user / customer to make payment only till the last date of payment has not passed.</li> <li>▪ Facilitate automatic updation of the information on the applicant record, upon realization of the submitted money</li> </ul>
3	The payment function should be against specific invoice / bills for the given services
4	The system should ask for the final confirmation from user before initiating payments function
5	The system should allow for user re-verification before initiating payment function through transaction unique ID allocated to the user
6	The system should provide for migration to a secure payment gateways from the portal in a secured manner
7	The system should allow predefined data / information to be provided to payment gateways
8	The system should be able to generate unique ID codes for every transaction
9	The system should be able to correlate and confirm <ul style="list-style-type: none"> <li>• User data / information through unique ID code generated</li> <li>• Payment gateway data information through Unique ID code</li> </ul>
10	The system should provide for confirmation of transaction to the use
11	The system should provide for payment receipt against the payment

12	The system should provide printable version of receipt
13	The system should not store any critical information of the user provided on the secured payment gateway
14	The system should allow for data / information transfer / flow to e-district application
15	The system should facilitate automatic updation of the information on the applicant record on successful payments made
16	The system should not allow any initiation of payment function beyond prescribed days limit for transaction The system should be able to provide user friendly information for such transactions
17	The system should not allow for initiation of payment in case of non availability of records of invoice / bills against which payment function is initiated <ul style="list-style-type: none"> <li>The system should be able to provide user friendly information for such transactions</li> </ul>
18	The system should provide for database security
19	The system should provide for application security
20	The system should provide user friendly information wherever required
21	The system should produce alphanumeric code for confirmation and verification for manual user Vs. computerized payments
22	The system should follow predefined payment rules and regulation as defined from time to time in the e-District application
23	The confirmatory receipt issued should have a unique registration number against the transaction
24	The system should maintain records of such transaction for users accounts respectively
25	The system should allow for printable version of the confirmatory receipt for all such successful transactions.
25	The system should be able to send emails on registry value of the user account on the payments.
26	The system should maintain all information and records of user transaction tagged to the user account and also provide for viewing of such information as and when required by the user
27	The system should not allow any changes to be made by the user into the following -

	<ul style="list-style-type: none"><li>• Past records</li><li>• Ongoing transaction once confirmation on initiation of such a transaction is given by the user</li><li>• Any values maintained for such transaction</li></ul>
28	The system should be compatible for easy integration with accounting and financial application either inbuilt at a later stage into the portal or external with a interface with the portal
29	The system should support multi-lingual interface (minimum Hindi and English) as per localization and language technology standards for National e-Governance plan defined in the e-District guidelines

### **3.5 Verification Component**

Verification component of the BPR is going to deal with the authentication of a particular service request. Verification process would ensure that no counterfeit or frivolous applications are lodged in to the system also it will help to identify and validate the right beneficiary availing the services. Verification also helps to establish that the application meets the regulatory and the service requirements.

The verification components envisaged in the BPR report can be broadly categorized under two categories:

- a. Physical Verification
- b. Non Physical Verification

#### **Physical Verification**

There are certain cases where documentary proof doesn't suffices the requirement of proving an applicant genuine for availing the benefits of a particular service. In these cases physical verification is the only medium to prove the genuineness of the individual and to validate the information supplied by him in the application. Though physical verification is a costly and time consuming mechanism for proving the genuineness of a particular individual but it also helps to capture the correct information at the particular moment of time. Whereas the non physical verification does not guarantees any change of information from date of last updation.

#### **Non Physical Verification**

Non physical verification component is going to deal with all such components that help to validate applicant's genuineness and the benefits accrued by him by presenting the same. This kind of verification facilitates the non-presence of the applicant at the time of service avail ness. It also saves applicant time, money and efforts to be present at the location for physical verification.

Non physical verification can be carried out with the help of the following means:

- a. Database
- b. Documents proof

**Using Database:** The non-physical verification can be carried out using validated databases; these databases can help to validate the applicant by matching the details provided with the information stored in the database. These databases eliminate the need of physical verification that was previously carried out to validate the information provided by the citizen. The information that would be fed into the database would be validated, cross checked and entered by the department officials that are managing the database.

**Documents Proof:** Authentic documents / copy of authentic documents signed by authority holding important designations can also work as proofs against the physical verification. These documents prove that the applicant is genuine and he is the same person as proved in the documents.

### Department Significance

#### **Non Physical Verification**

This kind of verification removes the necessity of physical presence of applicant which was considered previously sacrosanct for availing services. Non physical verification also saves a lot of time, money and other resources both for the applicant as well as the decision making authority.

#### **Physical Verification**

Physical verification helps to capture the correct information at the particular instance of time thus justifying the time and efforts put in to carry out the verification process. Also helps as an input for creating tools to carry out non physical verification.

### Channels of Delivery

The channels of delivery for this service are:

Channels of Delivery	Description
Online	Software application should integrate features for providing and capturing required information for physical verification and also allow for non physical verification against authenticated database

The key challenges seen for this component relate to verification and their integration so as to account for consolidated view of service delivery of the component.

**Legal challenges:**

- Provision for allowing decisions to be made based on Databases.

A change in the State IT Act would be required to recognize digitally signed databases as legally admissible sources of information.

**Process related challenges:**

- Any physical verification by a field officer must ensure that he verifies and records all information for e-District Database for all family members in one visit.

The field officer will be provided with a checklist of the details he needs to verify and record. These details will then be committed to the e-District Database and digitally signed by the field officer. The same is demonstrated, highlighted by blue dotted lines, in a draft To-Be Process as below:

**Technology challenges:**

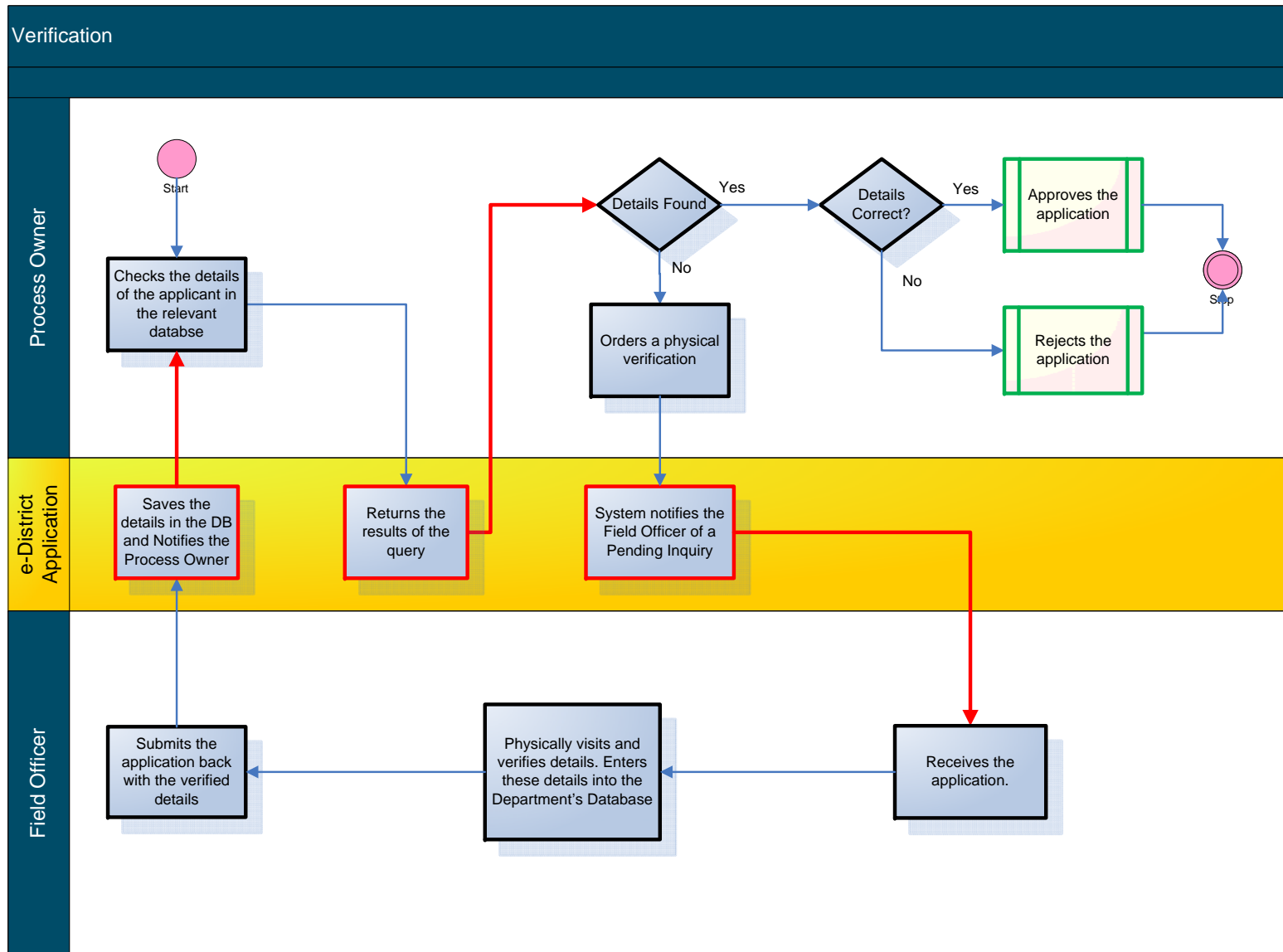
- Interconnectivity and accessibility between various databases of different departments

A gateway or an interface can be developed which would facilitate retrieval and saving from and to these separate legacy databases.

- Backups and security of the master database

The database server would be maintained in a secure environment and automatic backups would be scheduled.





Sr.	Process Description	Responsibility Centre
1	The Process Owner, on receiving the Application, queries the e-District Application (eDA) to verify the claim of the Applicant.	Process Owner
2	The eDA then queries the respective Database(s) and displays the results to the Process Owner.	e-District Application (eDA)
3	If the details of the Applicant are found, then the Process Owner inspects the details in the Database against the details provided in the Application.	Process Owner
4	If the details are correct, the Process Owner approves the application, as per the Approval Component	Process Owner
5	If the details of the Applicant are not found in the Database, then the Process Owner orders a Physical Verification and electronically, using his digital signature, forwards the Application to a Field Officer.	Process Owner
6	The Field Officer then conducts a Physical Verification and saves his findings in the Database and digitally signs the entry.	Field Officer
7	The Field Officer then forwards the Application back to the Process Owner electronically.	Field Officer
8	The Process Owner then checks the Database again and either approves or rejects the application as per the Approval or Rejection components.	Process Owner

S. No.	Functional Requirements - Application Receipt component
	The System should be able to allow the Process Owner to enter query parameters to search any Database connected with the System.
	The System should be able to query the specified Database with the specified parameters and return the result of the same to the Process Owner.
	The System should be able to retrieve information from the individual database and aggregate it before displaying it.
	The System should allow the Process Owner to electronically, using his digital signature, forward / delegate the Application to a Field Officer or any other Officer registered with the System.
	The System should be able decode the digital signed data and display the details of the signatory.
	The System should allow the Field Officer to modify the Database as per the Access rights defined in the CRUD Matrix for every service.
	The System should allow the Field Officer to electronically forward the Application back to the Process Owner after the details in the Database have been updated.
	The System should notify the Process Owner after the Field Officer has marked the Application back to him.
	The System should allow the Process Owner to either Approve or Reject the application as per the Approval or Rejection component, using his digital signature.
	The System should ensure that a Reason for Rejection is entered by the Process Owner if he selects to reject an application before accepting the Rejection.
	The System should log all the electronic movements of the application with date and time details along with the sender's and receiver's information.
	The system should support multilingual interface (minimum Hindi and English) as per Localization and Language Technology Standards for National e-

S. No.	Functional Requirements - Application Receipt component
	Governance Plan defined in e-district guidelines.
	The e-District Application must support Digital Signatures of any of the Certifying Authorities registered under the Controller of Certifying Authorities, and must be modifiable as per the changes made by the respective Certifying Authorities on the structure of the Digital Signatures issued by them.
	The Digital Signatures used and the e-District Application must provide the Time Stamping of the act of Digitally Signing a document as mandated by the IT Act 2000.
	The Smart Card reader or the USB Token, carrying the Private/Secret Key, must be activated by Biometric identification instead of a PIN / Password based system.

### 3.6 Rejection Component

Rejection element of the proposed BPR framework is envisaged to meet all the rejection related functions of concerned departments for the selected services under the e-district project. This element allows for rejection of the service request at the defined designated levels on the basis of the following reasons

- (1) Pre-defined requirement/eligibility not being met in the service request
- (2) Other reasons based on the discretion of the designated authority.

This element will also act as a precursor for providing stated reason for rejection to the applicant. It will be mandatory for the department/designated authority to provide a valid reason for rejection of the service request to the applicant. This will ensure accountability and ownership in the system and will result increased transparency.

The approving authority will use the established verification process for deciding about the authenticity of the credentials given in the service request. It is envisaged that once all the relevant citizen data is captured, verified and digitized, rejection process will be linked through the database. The approving authority will use the databases to decide whether the claim made in the application is correct or not. In case the claim is found to be verified by the database, the authority would approve the application using his digital signature.

The purpose of the rejection element as envisaged in the proposed BPR framework is listed below:

1. Allow designated government official to reject service request in case prerequisite conditions are not met along with the service request
2. Allow designated government officials to reject service request subject to their best judgment and interest of the power vested in them by the government
3. Allow rejecting authority to provide reasons for rejection of the service request (mandatory)
4. Allow requesting applicant / citizen to have valid reason for rejection of their service request (mandatory)

**Department Significance**

The significance of the rejection element relates to the vested power of the government on the concerned department for rejecting service requested based on described qualifying criteria's relating to the selected services under the e-district project.

**Channels of Delivery**

The channels of delivery for monitoring and reporting elements as envisaged in the framework is given in the matrix below -

Channel of Delivery

Channels of Delivery	Remarks
Online	Software application should integrate features for capturing required information for such transactions

The key challenges seen for this component relate to rejection and their integration so as to account for consolidated view of service delivery of the component.

**Legal challenges**

- Acceptance of Digitally signed rejections

A change to the State IT Act may be required to make the digitally signed rejections legally valid.

**Process related challenges:**

- To ensure that reason for rejection is provided before the process ends

The application will this feature where an application process will be considered complete only if its approved or rejected with a reason.

**Technology challenges:**

- None

Application Rejection