Integrated Framework for Delivery of Services

e-District Mission Mode Project

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Department of Electronics & Information Technology (DeitY)

Ministry of Communications & Information Technology

Government of India

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List of Abbreviations

Abbreviation	Description
BPR	Business Process re-engineering
CSC	Common Service Centre
DeitY	Department of Electronics and Information Technology
EDS	Electronic Delivery of Services Bill
FAQ	Frequently Asked Questions
GoI	Government of India
IT	Information Technology
MIS	Management Information System
MMP	Mission Mode Project
MSDG	Mobile Service Delivery Gateway
NeGP	National eGovernance Plan
NSD	National Service Directory
NSDG	National Services Delivery Gateway
NLRMP	National Land Records Modernization Programme
SAP	Service Access Provider
SCA	Service Centre Agency
SDC	State Data Centre
SOA	Service Oriented Architecture
SP	Service Provider
SSDG	State Service delivery Gateway
SWAN	State Wide Area Network

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Foreword

The e-District project was conceptualized and approved in the year 2011 with the intention of creating an enabling environment and a platform for design, development and maintenance of applications relating to various departments and for providing of services to the citizens, at the district and sub-district levels.

During the implementation of the pilot phase of the project in 41 districts across the country, a number of learnings have taken place. Moreover, significant improvements have also taken place in technology creating a great potential to improve the original architecture and implementation model of e-District. These guidelines take into consideration the need for optimum utilization of the investments made in the e-District project and also the investments already made in the infrastructure projects like SDC, CSC, SWAN, SSDG etc. The following key objectives are proposed to be fulfilled by the set of interventions being prescribed now in the form of an Integrated Framework for Delivery of e-Services through the e-District MMP:

#1. **Making e-District project service-oriented and transaction-oriented**: Success of any MMP will be measured in terms of number of **G2C transactions delivered per month** across all services in the portfolio.

#2. Minimizing the Time to Benefit : This objective is in terms of **compressing the project timelines from conceptualization to completion**, to deliver all the selected services across the entire State. Ideally, it should not take more than 12 months for rolling out 10 high volume services throughout the State, as has been demonstrated in some States..

#3. Ensuring the optimal use of Infrastructure : The objective is to optimally **leverage the infrastructure created in the form of SDC, SWAN, SSDG, CSC** and the other ICT infrastructure created by the State under various initiatives and **harmonize** it with the e-District MMP.

#4. Leveraging the existing applications : In several States, there are already applications developed by NIC or by the respective departments internally or through private agencies. These could be part of an MMP project or a non-MMP Project. Irrespective of the lineage of such applications, the effort should be to leverage them and deliver the services through a single front-end i.e. either through State portal or through e-District portal, preferably through **a unified delivery mechanism** at the ground level.

#5. Attempting Rapid Replication: Every State/UT should aim to take advantage of the successful implementation of applications that have become fully mature in other States or have been successfully implemented on a pilot basis within the same State. The effort should be to quickly dovetail such identified applications with the e-District project, of course, with suitable customization, and plan for their quick rollout throughout the State. We should adopt the slogan **1+1=35 !**

#6. **Redesigning the e-District Architecture** : The strategy should be design/redesign the e-District Architecture so as to achieve the objectives 1 to 5 above. Designing the **right architecture is the key to success** in the e-District rollout. This would enable integration of the applications and delivery of e-Services in an efficient, secure and integrated manner, in the fastest timeframe.

#7. **Providing flexibility in implementation** : As the requirements vary widely across the States/UTs as also the progress in e-Development, it is felt essential to provide a degree of flexibility in implementation of the e-District MMP.

While the above objectives appear to be rational and laudable, the realization of the same calls for a significant effort. Some of the important actions to be initiated / taken by the IT Secretaries of the States/UTs for achieving the objectives are as follows :

a) Selection of a portfolio of services in consultation with the line departments and getting the same approved by State Apex Committee.

b) Firming up the outcomes for each service in the form of service definitions and service levels, and fixing up targets for the transaction volumes per month under Type 1, Type 2 and Type 3 services.

c) Designing/Re-designing the architecture in terms of these guidelines.

d) Formulating a precise, holistic and aggressive implementation plan that touches upon the aspects relating to People, Process, Technology and the Implementation Model. This, *inter alia,* includes sourcing of applications, selection of SI, phasing and scheduling of the services, promulgation of the EDS Rules, data digitization etc.

The Integrated Framework for Delivery of e-Services is a bold step, aimed at infusing a new vigour into the e-District MMP. In this mammoth initiative, the States/UTs can be assured of the fullest support, cooperation and guidance to come forth from DeitY.

Wishing you all the best in this endeavour to achieve the highest levels of quantity and quality of e-Services delivered to the citizens !

J. Satyanarayana
Secretary, DeitY

The Context

The e-District MMP is perhaps the most important of the MMPs in the NeGP, as it purports to be both the platform and the conduit for delivery of e-Services to citizens in their day-to-day lives. The need for a radical realignment of the implementation approach of the e-District MMP has been brought out in the Foreword. The action needed at the State level, is articulated in the form of 3 sets of Interventions:

Intervention Set #1 : Make the e-District Project Outcome-oriented

Intervention Set #2 : Design an appropriate Architecture

Intervention Set #3 : Define the Implementation Roadmap

In essence, the e-District project has to be positioned as the centre-piece of an Architecture that integrates, synthesizes and harmonizes the past, present and future developments in e-Governance.

These three Interventions are outlined in the chapters below.

1   Intervention #1 : Make e-District Project Outcome-oriented

1.1   Select the Right Portfolio of Services:

In so far as the delivery of e-Services to the citizens is the desired end, the success of e-District MMP and the impact it makes on the citizens depends to a significant extent, on the portfolio of services selected. As per the national rollout guidelines (June, 2011), the States / UTs have to select 10 service categories (each service category can have multiple services under it). Out of these 10 service categories, 5 services are mandatory service categories and the remaining 5 categories are optional service categories. These had been explained in **'Guidelines for National Rollout for e-District'** http://www.mit.gov.in/sites/upload_files/dit/files/GNR_4711.pdf   and have been provided in **Annexure A** with minor updates.

The Services selected should be such that there should be enhancement in the quality of service as soon as possible. Based on the learnings in the pilot project, a few suggestions are made below in this regard

During Pilot it was observed that there were many services which were selected by the States during the planning phase, but were dropped later due to various reasons. Also there were various services which had very less number of transactions and hence had limited impact on citizens. Taking into account such learnings, it is suggested that :
a) The State Government should identify **high volume services** in the portfolio of the e-District project. This would help in creating a high impact as it would benefit a large number of citizens.
b) It is necessary also to target those services that make a **significant difference to the citizens** in terms of savings in cost, time, effort and hardships. Certificates, permits, licenses of all types fall in this category. They should attract higher priority to mere Information Services.
c) The State IT Department / State Nodal Agency should get **concurrence from the line Departments**, as soon as possible on inclusion of their services as part of e-District project, so as to ensure their support during the implementation of the project.
d) The Portfolio of Services should be placed before the **State Apex Committee** for its consideration and approval.
e) In case any of the services selected to be in the portfolio of e-District, are **already launched** under any other (MMP or non-MMP) e-Governance initiative, either of the State or of the Central Government, the State IT Department, in consultation with the State Line Department, may plan to provide such services through e-District using the SSDG middleware, as explained in the Section on Architecture.
f) In case any of the services proposed to be **covered** under any other (MMP or non-MMP) e-Governance initiative, either of the State or of the Central Government, the State IT Department, in consultation with the State Line Department may work out an **interim arrangement** of providing such services through e-District till the concerned e-Governance initiative has been made live. This would ensure that the infrastructure and database created during this interim period is fully leveraged by the line department as and when it decides to roll-out its own e-Government initiative. The Reference Architecture proposed in next Section provides for meeting such a contingency.
g) The feasibility of the State Department undertaking **Business Process Re-engineering** / making legal or administrative changes in the delivery of the service should be established before inclusion of a service in the Target Portfolio.
h) Lastly, the Department should consider covering all the high-volume citizen services of a particular department rather than a few.

1.2   Focus on the Quality of e-Services

1.2.1 Quality of Service:

The quality of an e-Service depends on the manner of its delivery. In some projects, despite the launch of the 'e-Service', the following practices are noticed:

- (i) the citizen has to make a number of trips to the Government office;
- (ii) the citizen is not sure when the service would finally be delivered;
- (iii) there is a significant dependency on the age-old back-end processing, use of discretion, avoidable inspections etc.

Such services as above do not merit to be called e-Services, and cannot be included in such a form in the portfolio of e-District.

The following attributes, in the descending order, qualify a true e-Service:

- a) The service can be availed by the citizen over the Internet or mobile, on a self-service basis, and on a 24x7 basis;
- b) The service can be availed Across-the-Counter in any designated kiosk;
- c) The service can be availed with complete certainty on the delivery time;
- d) Where physical contact is a necessary part of the delivery system, the service centre has the right ambience and amenities for the citizen's convenience.
- e) The same service can be availed equivalently at a number of delivery points, like service centres, kiosks etc.

1.2.2 Defined Service Levels

While delivering the e-services, key emphasis has to be provided to the improvement in the service levels. The e-District project should have a clear commitment on achieving acceptable service levels for the services selected. Already some States have Service Delivery Guarantee Acts which provide for delivering services within a stipulated time and also provisions to impose penalty on the concerned officer in case the service levels are not met.

The Government of India also has introduced an Electronic Delivery of Services (EDS) Bill, whose objective is to make it mandatory for every government organization to deliver public services in electronic mode with stipulated timelines and service levels for each service.

There shall be a clear emphasis on the **service levels for each service** being provided to the citizens. Service levels seek to guarantee the time period in which the service shall be delivered to the citizen and the quality thereof. Adoption of well-defined service levels enhances the citizen satisfaction, besides placing enforceable contractual obligations on the service providers, through the relevant **Service Level Agreements**. Hence the States should leverage the e-District project for provisioning infrastructure for delivery of services in a **time bound manner**. Under this project the State Government can use the funds for creating awareness on the Service Level Commitments and use of e-District as a means to achieve the service levels. The documentation relating to the Mee Seva Project of AP, MCA21 Project and the Passport Seva Project can be referred to, for more elaboration.

1.2.3 Service Definition

For establishing an effective mechanism to ensure the quality of service and achievement of service levels, the basic requirement is to define each service precisely. The project documentation shall specify, the service process, i.e., its initiation, processing, the responsibilities of various functionaries and the delivery mechanism in clear terms. A tabular statement shall be prepared in this regard and appended to the RFP. It should also be published at the time of launching of the service, for awareness of the users.

1.2.4 Service Categorization

The States / UTs should prioritize the citizen services which can be provided immediately to the citizens. The focus should be on services that can be delivered across the counter so citizen does not have to visit a service delivery access point multiple times. The services are categorized as follows:

- **Type 1 services**

  These are the services that can be provided "instantaneously" across the counter. These services would be those where an accurate digital database is available, for example the database of Land Records, Transport etc. Further it is also possible that once births and deaths are registered, and are stored in a secured database and digitally signed and thereafter these services can be provided on demand. The provision of statutory services across the counter, like a variety of certificates, requires that the database is digitally signed by the competent authority in bulk in advance, such that when any citizen makes a request, the relevant record is downloaded and a certificate can be issued by the CSC agent.

- **Type 2 services**

  These are those services which require a minimum of 2 visits, but can migrate to Type 1 services with due data digitization , onetime physical verification and digital certification.

- **Type 3 services**

  These services require physical presence of the citizen / verification / inspection and cannot be delivered across the counter e.g. issues of driving license, sub-division of land, etc.

The States should identify services from the services selected under e-District project which can be immediately provided to the citizens in the next 6-9 months. This should comprise of 3-4 services from Type 1 (refer Annexure B for potential Type 1 services and preparatory activities required for moving a service to category A) and balance from Type 2 & 3.

1.3 Monitor the Transaction Volumes

The measure of success of the e-District project is **the number of e-Service transactions** which happen through the project. Hence it is important for all the stakeholders to align the goals to the number of transactions happening through the e-District project, per day, per month and per year. Some of the ways in which the transaction orientation of the project can be ensured are as follows:

1. The System Integrator's payment schedule should be linked to the number of transactions. The States should work out a suitable mechanism in the RFP through which 25-30% of the payments to the SI are linked to the percentage of transactions effected electronically per month against the total number of transactions in that month.

2. The Result Framework Document (RFD) for each of the participating Departments should have "number of transactions" as one of the criteria to measure performance.

3. The online report showing the number of transactions effected each month, service-wise should be published on the website of the State Government. It is preferable to have this MIS on real-time.

It is expected that with judicious selection of high volume services and following these guidelines, the States will ensure significant transaction volumes under the e-District project.

Some of the enabling mechanisms to achieve the above are provided below.

1.3.1   Online reporting tools

The State Governments implementing the e-District project should plan for online reporting tools as a part of the software application which provide the details on the number of transactions happening for a particular period (for e.g. a month). While doing so, the State needs to ensure that appropriate reports are readily available which help in measuring the performance (and thereby helping calculation of the fee/transaction payments) of the service providers. Online SLA Management Systems

Further, to ensure that the service levels are being met, the State Government should ensure that the software application should provide for an online Service Level Management system. The online SLA management system should be able to :

(a) Measure performance in the delivery of services

- Measure the turn-around-time for provisioning of services against the committed service levels. This should be such that the system should be able to generate reports :

    o   For a particular service

    o   For a particular district

    o   For a particular tehsil/office

    o   For a particular official

- Escalate to relevant officials in case the service levels are not met by the concerned officials, so that:

    o   In case the service is not delivered within time, there is an escalation mail sent to the reporting officer of the concerned official.

    o   In case there is still no action, another escalation mail should be sent to his next level of officer and so on.

(b) Measure technical performance of the System

    o   Application uptime

      o   Network uptime

      o   State Data Centre uptime; etc.

The relevant infrastructure may already be available under the State Data Project. The effort should be to leverage these tools for monitoring the performance of various components and plan for enhancements proactively, in case a chokepoint is foreseen.

1.3.2   Capacity Building

To achieve the above, the State Government needs to undertake immediate Capacity Building measures. Some of the steps planned within the e-District Scheme are as follows :

a) **State Project Management Unit** : The State Project Management Units have been selected centrally by DeitY and these agencies should commence development of the Scope of work and payment schedule in the SI RFP which should reflect the above.

b) **State eGovernance Mission Teams** : The SeMTs should be tasked to interact with the line Department of State Departments to get their support for the e-District project. They should ensure consistency between the State specific technical architecture and e-District Technical architecture. In case of any variance between the two, there should be a roadmap so that the consistency is ensured within a timeline.

c) **e-District Managers** : The role of e-District Manager would be critical in making the project a success. DeitY has already published the draft e-District Manager guidelines which will be finalised shortly. The e-District Manager will be responsible for project management & co-ordination at a district level. He also will play an instrumental role in training the district level officials in delivering services within the specified service levels.

d) **District e-Governance Societies :** Formation of District e-Governance Societies (DeGS) and institutional capacity building through DeGS would be instrumental. It may be noted that all the district level funds will be transferred to the DeGS and this would provide the flexibility to the DC/DMs in managing the e-District project's day-to-day affairs at the district level.

2 Intervention #2: Design an appropriate e-District Architecture

2.1 Application Architecture

During the pilot project it was observed that the application development took a considerable amount of time, as the Sis have been required to undertake AS IS, TO BE, FRS, SRS etc. Based on the learnings acquired during the pilot, it is strongly suggested that the States should **leverage** the work done in the Pilot States.

It is also seen that several States have also several applications already running in their own State, which are providing G2C services. It is necessary to leverage those applications also by dovetailing and integrating them in the e-District architecture.

In the context of the above two scenarios, it is necessary for each State to develop an appropriate **Application Architecture** that factors the developments already made, either in their own State or in the e-District Pilot States. The design of the application architecture logically follows the finalization of the Portfolio of services, described in Section 1 above.

The table in **Annexure C** enables the States to decide upon an appropriate application architecture so as to source the applications from different 'owners', but provide the services through the e-District project in an integrated manner:

The design of the Application Architecture involves the following steps:

1. Finalize the Portfolio of Services to be delivered through the e-District project

2. Identify the sources of existing applications, from amongst the following sources, that can provide the desired portfolio of services

    a. Applications developed in the e-District Pilot of the same or a different state (*for this purpose, DeitY will make available to all the States, a master list of all applications developed in the Pilot States, along with the definition of services they provide*)

    b. Applications developed and implemented in their own State, either by NIC or by the line department with or without an external agency

    c. Legacy Applications (identical to the e-District Applications) developed and implemented by other States and running successfully (*for this purpose, DeitY will make available to all the States, a master list of all such applications developed in the States, along with the definition of services they provide*);

    d. Applications developed by Central Government Departments and already providing G2C services.

    e. Develop afresh or use customisable/configurable Service Plus application which has been developed by NIC. NIC will extend full support in its implementation.

3. Conduct 'due diligence' on the identified applications as to whether each of them can be integrated with the e-District project, with or without appropriate modifications/ customization. The following factors are needed to be considered in this regard:

    a. The application should have been developed on a web-based architecture, preferably SOA, with centralized databases

    b. The application is certified from the perspectives of security and functionality

    c. The development environment used by the application is compatible with the target environment of e-District.

4. Create an application architecture that clearly defines the manner of integrating the shortlisted applications with e-District. The integration can be effected adopting any of the following methods:

    a. Copy, customize and redeploy in the e-District suite (suitable for 2(a) and 2(c) above)

    b. Use web-services to integrate with e-District suite (suitable for 2(b) and 2(d) above) in the short run

    c. Integrate with e-District using the **SSDG**, if already launched/ about to be launched in your State (suitable for 2(b) above) in the long run

    d. Integrate with e-District using the **NSDG**, (suitable for 2(d) above)

    e. Hyperlink to e-District Portal (suitable for 2(b), 2(c) and 2(d))

5. The following points may be noted while designing the Application Architecture

    a. It is absolutely essential to take the appropriate decision in consultation with the concerned line department of the State and Central Govt as the case may be.

    b. Despite the facility of borrowing the application as in 2(a) to 2(d), the spadework relating to creation of master data and of data digitization, training etc rests with your State, before the services can be launched.

6. The IPR of the application developed under 2(a), (b) and (c) is expected to be with the concerned State Government. Hence there may be no legal issues in adopting/adapting the applications developed by different Govt agencies. The Application Architecture needs to be finalized by the State/UT as soon as possible, so that the SPMUs can be directed to develop the RFP accordingly.

2.2 Deployment Architecture

The e-District architecture envisages leveraging of the core NeGP components of State Wide Area Network (SWAN), State Data Centre (SDC), State Services Delivery Gateway (SSDG) and Common Services Centres (CSCs).

Applications and data under e-District project are to be hosted at the SDC and all field offices are to be connected through the SWAN. Those horizontal offices which are required to be connected for the delivery of services and are not already connected to the SHQ, DHQ or BHQ under the SWAN project are to be provided horizontal connectivity under e-District project.

Citizens will access services through the Common Services Centres and no separate physical front ends for delivery of services have been envisaged under the e-District project. The success of the e-District project depends on the volume of transactions for various services and this will directly impact the sustainability and viability of Common Services Centres. To enable this, the State governments need to

issue Government Orders authorizing CSCs as service delivery access points for e-District services and fix service charges with clear revenue sharing mechanism between the government, service providers and CSCs.

The e-District project has planned to leverage the middleware in the form of State Services Delivery Gateway which is at an advanced stage of implementation in most states. In States where SSDG is operational, e-District should integrate with the SSDG. In States where SSDG is not operational at the time of development of the e-District application, the application should integrate with the NSDG, as the thrust is on provisioning of services and SSDG should not become a limiting factor for enabling services.

Further, if under e-District, there is a service which is also selected as a service under SSDG project, the e-District application should integrate with the e-form developed under SSDG for that service. The application should use the standard connectors provided for this purpose by the SSDG project to connect with the e-District application for end to end integration. For services under e-District project which are not taken up under SSDG project, the e-forms to be developed under e-District project should use the standard connectors provided for this purpose by the SSDG project to connect with the e-District application for end to end integration. For services under SSDG which are not a part of e-District Mission Mode Project, the State Governments may consider building back-end applications for those services either through the existing Mission Mode Projects or through the e-District project.

The long term objective should be to ensure that the back-end applications are actually owned and handled by the concerned department with seamless end-to-end integration with SSDG and State portals.

2.3   Design of Functional Architecture

A Functional Architecture is a logical representation of (i) the business functionalities that an organization wants an IT-based system to deliver and of (ii) the manner in which the various categories/ classes of users interact with the system.

In the context of the e-District Project, the following elements enable designing of an appropriate Functional Architecture.

a) **Citizen Interfaces:** It is expected that the e-District services would be accessed by the citizen through various channels. At the minimum the citizen would be accessing the services from the CSCs. The Citizens should also access the services directly by accessing the web portal or through mobile devices. However, both the citizens and CSCs, will access the web-portal for availing the services. This web portal should be the State Portal (preferred) or e-District portal or both.

b) **Department Interfaces**: The departments at the backend need to access the system for various purposes like data entry, data updation, approvals through workflow etc. These interfaces can be via the Internet or through an Intranet.

c) **Basic functional elements**: The e-District service delivery demands 24x7 availability of the system, authentication and authorization of various classes of users, workflow system for approvals, digital signature/PKI for authenticating records/ certificates, payments to be made, MIS, Dashboards for monitoring and mobile services.

The e-District Business layer should, inter alia, provide for :

a) Workflow, for facilitating approvals at various levels while processing a citizen request.

b) Authentication of the citizen through Aadhaar

c) PKI Support for facilitating the usage of digital signatures

d) Payment Gateways, to make the payments directly by using credit/debit cards.

e) Mobile services for communicating the updates to the citizen

Figure 1 is a high-level illustrative representation of a functional Architecture. It may be suitably amplified by the States.
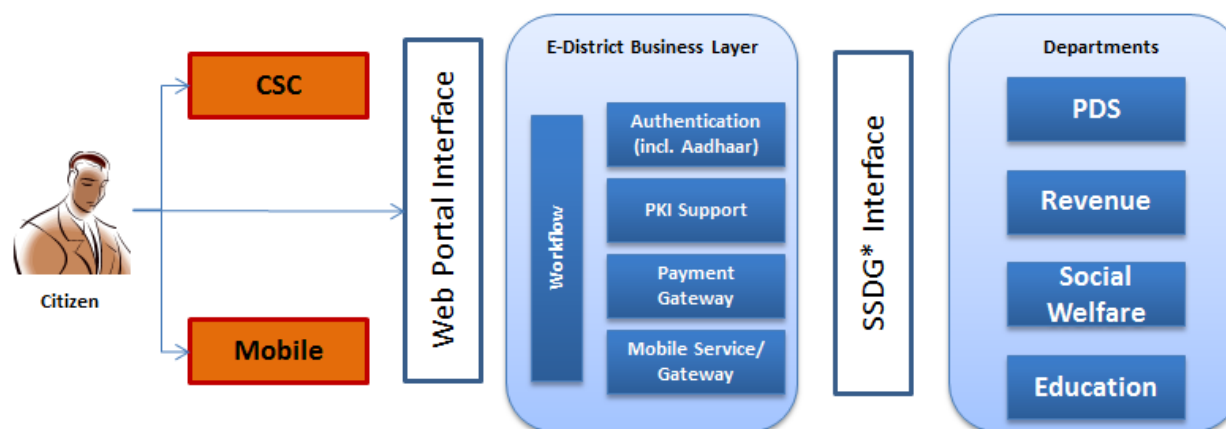

Figure 1 : Functional Architecture

2.4 Design of Technical Architecture

2.4.1 E-District Solution Architecture existing in the Pilot States

Currently in the Pilot eDistrict Applications developed so far only 5 to 6 service categories are included whereas the scheme mandates 10 service categories. In the current architecture of e-District pilot states, the request is received by the eDistrict directly and the application is not integrated with SSDG. The data is stored in a common database, wherein there are separate sets of tables for each back end department such as Social Welfare, Revenue & Courts, PDS etc. The data of each department is stored in department specific table sets. A notification is issued to concerned department officials to initiate the process that has been designed as an electronic workflow in e-district application.

The backend department officials access the e-District application over e-district Portal hosted on the internal network accessible over the SWAN. Figure 2 depicts the existing architecture.
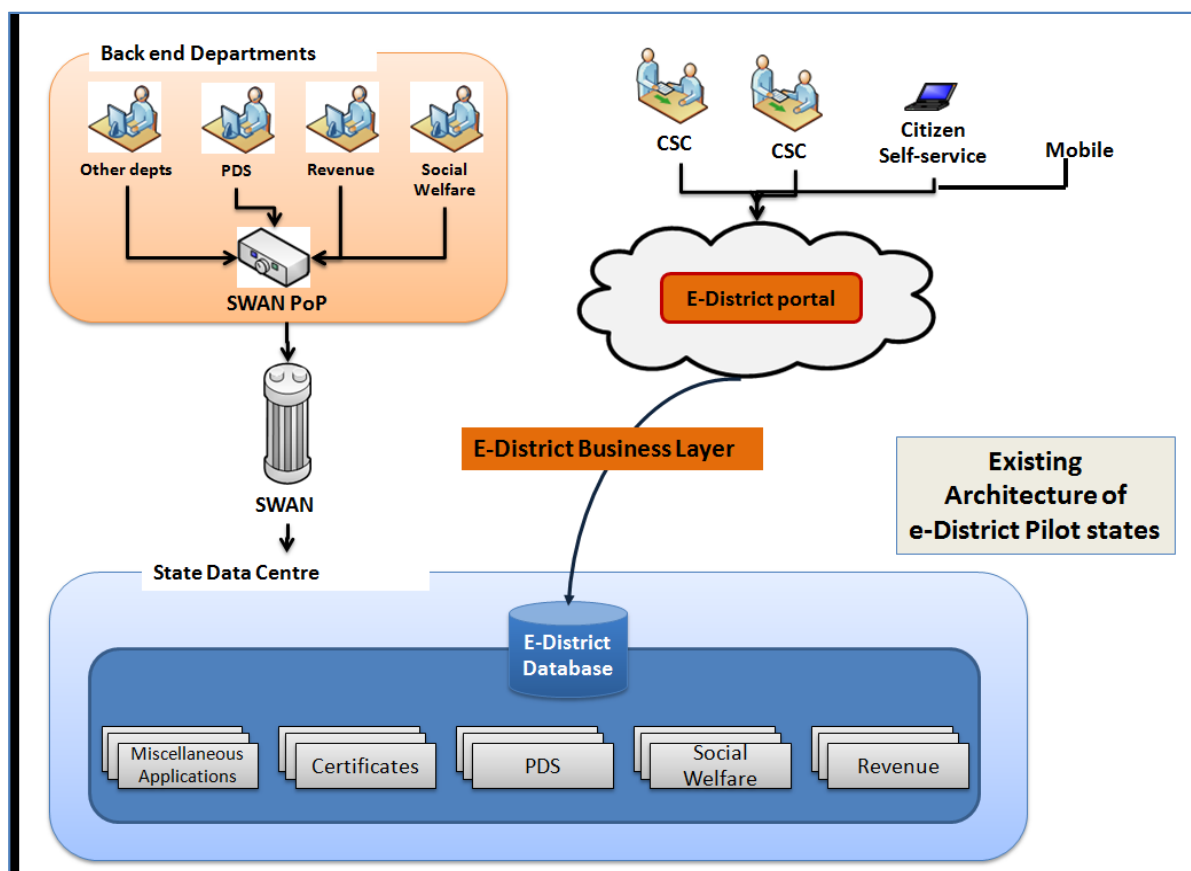
Figure 2: Existing Solution Architecture for Pilot e-District States

2.4.2   Architectural Guidelines

The need for revising the architecture arises out of the following considerations:

    a. Change in Functional expectations needing repositioning of e-District project as explained in the Foreword

    b. Developments in the Technology after the pilot architecture was designed originally, like Cloud, SSDG etc

    c. Need to introduce flexibilities needed to align with the Application Architecture described in Section 2.1

A number of Architectural scenarios have been described in the following sub-sections, to meet the varying needs of the States in designing the Technical Architecture to suit the Application Architecture designed as per Section 2.1 above. These can be further modified/ improved to suit the specific needs of each State.

SCENARIO 1: *No Database and Workflow available at the Department in majority of the applications selected in Sec 2.1*

As specified in the Intervention 1 and Section 2.1, all the States will need to identify additional services that can be delivered by eDistrict application. These identified services should be included in the existing eDistrict application and the application should be rolled out across all districts of the State after successful STQC testing. In this case, the existing eDistrict application will host the data of all services in its own database. Once independent applications are rolled out for any service which is part of eDistrict application then the data of that service should be migrated to that new application's database. This architecture is same as the architecture currently in place in Pilot states and is depicted in Figure 2 above.

SCENARIO 2: *Independent database and workflow available for some services and no database and functionality available for other services*

When some of the existing services being delivered under e-District application become available from other application i.e. non MMP/ MMP with its own database and workflow/business layer, then this service should move from e-District application to the newly developed application using SSDG. The existing data of these services will also move to database of new application. This means continuous rearrangement of backend workflow and database of e-District application.

In this scenario there would some e-district services which will still be delivered using e-District workflow and database and some others will be using their own independent workflow, databases and SSDG.

This architecture is depicted in Figure 3 below. It may be noted that this only an Intermediate Architecture, that should aspire to migrate to the Architecture shown in the next Scenario.
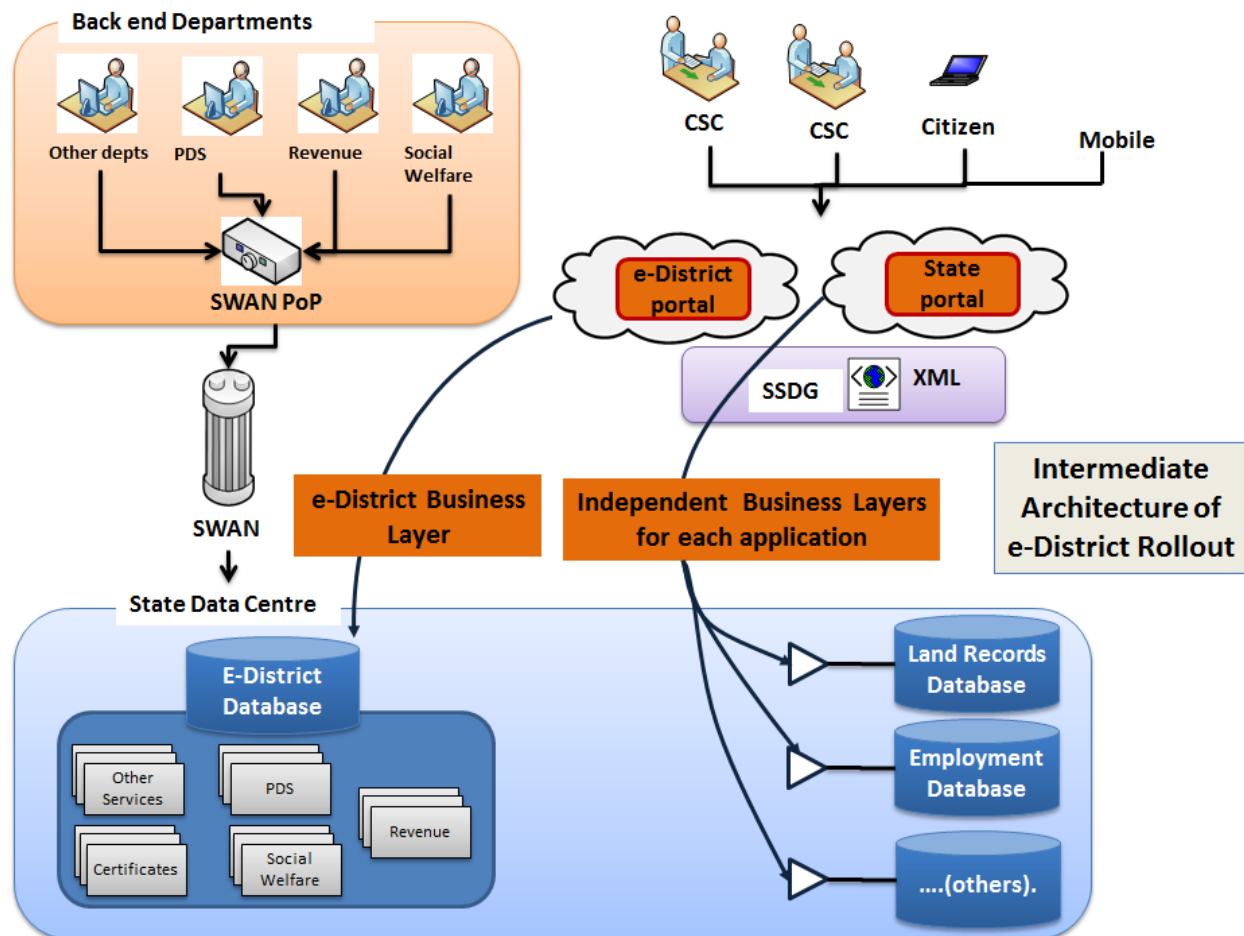
Figure 3: **eDistrict Application Architecture where some services are provided by an independent database and State Portal and the others by e-District**

SCENARIO 3: *Database & Workflow available but no Web Front End available at the Department*

Eventually, the eDistrict application should also integrate with SSDG and provide access to citizens for eDistrict services through State Portal. All the existing state applications which have their own independent database and workflow and are identical to e-District should be made available on State Portal through the SSDG. The application may be States own application or adopted application.

It is envisaged that gradually most of the services of e-District will move to their independent departmental application / MMPs. Hence the e-District is a "self – limiting" project offering services to the citizens as an interim measure. Thus e-District application plays a limited role for "miscellaneous services" which have been taken under e-District scheme as they do not have their own workflow and database. This architecture is depicted in Figure 4 below.

It may be noted that this is the final state of Architecture that a State should attempt. All States with mature existing applications should straightaway opt for this Final Architecture.
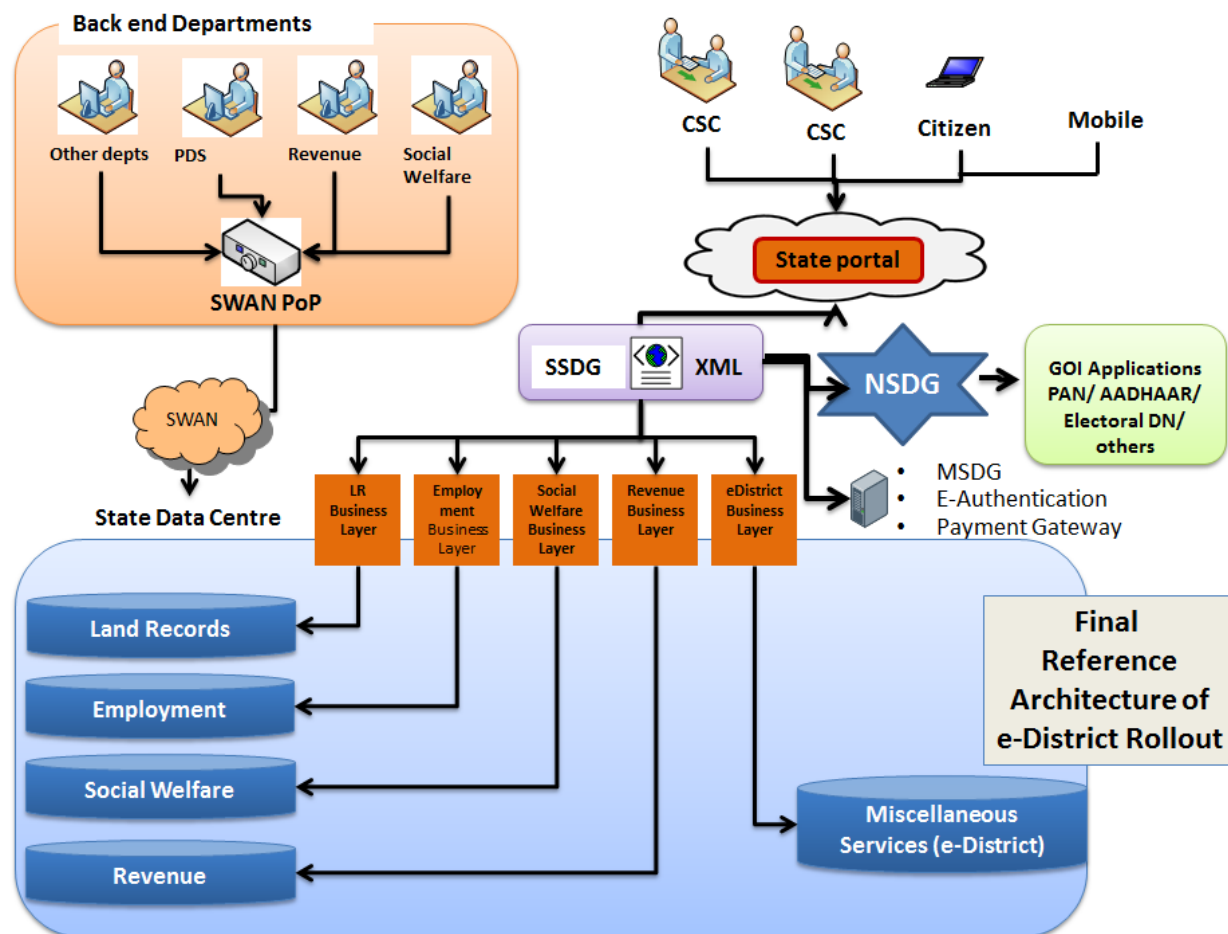
Figure 4: Architecture for Departments where Database and Workflow are available

In all 3 scenarios mentioned above, following steps need to be taken to enhance the capabilities of the application:

Steps Needed

- To reach the Final Reference Architecure, the SAP and SP Connectors will need to connect the e-district Business Layer. This would help in routing requests and responses to back-end departments within a stipulated time period. It is pertinent to note that all scenarios integrate with SSDG in the long run. Details will be provided in the eDistrict SI Model RFP.

- Design and implement an accounting module to keep track of all the transactions service category wise, department wise and break down of transactions SCA, VLE, DeGS wise.

- Use e-authentication (including Aadhaar for citizens), e-payment, Digital signature and Mobile gateway.

- As and when required, migrate the data available in eDistrict database to newly created respective department database in case of Pilot states

2.4.3 Rapid Roll-out

It may be noted that the various options for rapid roll-out can be implemented smoothly provided the Government has all the necessary Intellectual Property Rights (IPRs) and the existing SI can be engaged within the Government rules for customization, hosting and maintenance of the application in multi-tenant environment.

2.4.3.1 *Rapid Replication*

Currently there are numerous citizen service applications which are running successfully. It is suggested that various State Governments should adopt these applications. It is appreciated that these applications may not be in the form which can be easily replicated. These applications would require substantial amount of customization.

The concept of rapid replication will work in the following manner :

1) DeitY would provide various successful applications on the "App Store" which would provide basic information of the applications.

2) The "taker State" should identify the application from the "App Store" which best meets the requirement and engage the "donor State" for deployment of application in its State.

3) The "donor State" provides the support to the "taker State" by undertaking customization activities including

   a. Design of the Forms

   b. Workflow definition

   c. Language / Data labels

   d. Outputs (Formats of the certificates etc.)

2.4.3.2 *Cloud Architecture*

Cloud architecture is becoming increasingly popular due to the clear advantage of reducing capital expenditure and lesser time to implement. By using this technology, each State need not purchase IT infrastructure or develop the application but can use the IT infrastructure and the application developed by some other State.

The applications are typically built using a three layer architecture consisting of a presentation layer, a business logic layer, and a data layer. Each layer can be hosted using different Cloud deployment models. Various models of leveraging cloud architecture were analysed and two of the options are provided below :

Option 1 : Providing a single application on the cloud which can be used by multiple States by suitably amending the design of the application. The redesigned application will have a single schema and a single database for all the States. Each State can configure their forms, approval processes / workflows, certificates etc. without modifying the source code.

However this architecture may have several limitations pertaining to a) Single Point of failure b) Scalability c) Data Privacy & Security d)Performance and e)Management and administration of Database

Option 2 : A State can choose any application from the *App Store* and customise it to suit its requirement as described in Section 2.4.3.1 with the difference that the physical computing infrastructure is leveraged using the cloud model. This would also reduce the capital expenditure and provide the flexibility to utilize the resources elastically, on-demand and optimally on the basis of actual requirements.

As per Final Reference Architecture (Figure 4), the cloud architecture also needs to be integrated through SSDG. Figure 5 illustrates a technical architecture where separate instances of the application (post customizing it for a particular State) are running by leveraging the cloud infrastructure (physical compute power).
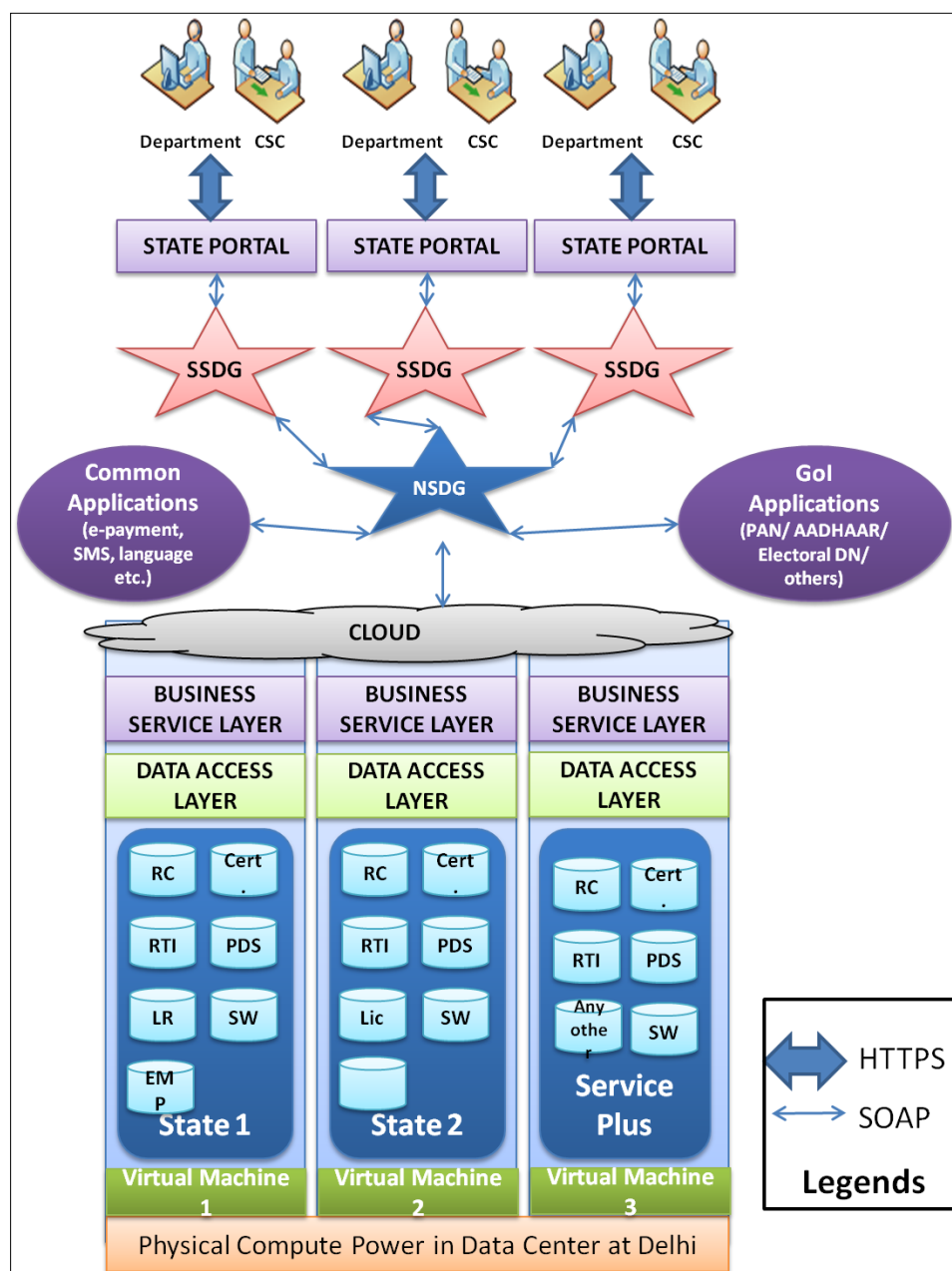

Figure 5: Cloud architecture for hosting applications on multi-tenant mode from one SDC

2.4.4   Common interventions required in Scenario 3 & Cloud Architecture

A.   Decoupling of Citizen Front end and Business Layer

In the pilot states, the eDistrict application allows access to a service to the citizen by a form which is currently part of the application. As per the technical architecture in Scenario 3 (Figure 4 - the final reference Architecture) and the Cloud architecture, this citizen interface form should be "detached" from the eDistrict application and converted into an eForm and should be hosted on the State portal of respective States.

B.   Data transmission from State Portal to Business layer

The citizen will access eDistrict services on the State portal of his/her state. Once the citizen accesses a service by selecting the eForm of a particular service and filling out the required information, the captured data will be converted into an XML packet. This XML packet will be validated for data formats and mandatory fields against an XSD for a particular form.

For Scenario 3:

This XML packet will then be sent to SSDG and then SSDG will forward this packet to various MMP applications hosted in the SDC. This routing will be done based on the destination information that will be part of header of the XML packet.

For Cloud Architecture:

This XML packet will then be sent to SSDG and then SSDG will forward this packet to NSDG as the cloud maybe hosted in Delhi. NSDG will then route the message to the instance of that State's application on the cloud. This cloud will host application instances for different states as referred to in Figure 5. This routing will be done based on the destination information that will be part of header of the XML packet.

The following is the process flow of how the conversion will take place –

While this needs to be done for Scenario 3, it is a necessity for the Cloud Model.

C.   Payment for the Service

The eDistrict business layer will then calculate the fee for that service and generate a transaction id for the service request. This fee number and the transaction id will be sent back to the Service Access provider of eDistrict and will ask the citizen to make the payment which will be realized using payment gateway. Once the citizen makes the payment, then the payment reference number as well as the transaction id will again be sent to the eDistrict business layer via SSDG. Once eDistrict business layer receives this information, the process of backend department workflow will be initiated. Upon approval of the service request the final approval or certificate will be delivered to the citizen either by courier, mobile or through the CSC.

D. eAuthentication

The details provided by the citizen in the form needs to be validated through Aadhaar. For this, the application needs to sign-up with Authentication User Agency (a software). The details of the e-District application will be converted into XML format and would be send to a particular IP address. The UIDAI application would validate the information provided by the citizens.

E. MSDG/SMS Gateway

It is envisaged that a few services can be provided to the citizen on mobile apps. DeitY has already created Mobile Service Delivery Gateway to facilitate the use of Mobile Apps. However within e-District, it is envisaged that at the very minimum, the "status update" on the services should be sent to the citizens. The MSDG/SMS gateway should be leveraged for accomplishing this.

F. Workflow for Backend Department Functions

The functionality to access the workflow can continue to be in the current form where the forms are bundled within the application. The officials access the application workflow without going through the SSDG.

3   Intervention 3: Define Implementation Roadmap

3.1   Adopt Step By Step Approach

The State Governments have to immediately initiate the following activities, so that the project is implemented in a time bound manner:

a) To manage activities at the State Level, the State should

1) **Finalize Portfolio of Services**: Revisit the list of services chosen by the State in the Detailed Project Report and finalize the same with the concerned line departments. The services need to be categorised as Type 1, 2 or 3 and a roadmap for moving services to Type 1 should be articulated.

2) **Finalize the Application Roll-out Strategy** : Whether the State is going to use any existing application developed by the same State; or adopt application of another State. Accordingly, steps may be taken to customize the application. In case an existing application is being used, immediate steps should be taken on getting the software application STQC certified.

3) **Finalise the Functional and Technical architecture** for the State and identify the "gaps" (in terms of services, technical components, infrastructure etc.) which need to be bridged immediately and finalize the roadmap to reach the target architecture in the future. The strategy should be that the e-District roll-out should not be delayed at the cost of having an ideal architecture or some components of architecture which are yet to be implemented. The targeted/ideal technical architecture has to be achieved by the State subsequently and within the resources available with the State.

4) Sign the contract with the selected SPMU agency**. The revised responsibilities of the SPMU are given in Annexure D**

5) Undertake Business Process Re-engineering, wherever required, to ensure that there is a significant improvement in the Service Levels of the services covered under e-District

6) Publish the RFP for SI to accomplish the "outcome orientation" which clearly focus on the number of transactions and a roadmap for the SI. The revised Model RFP shall be provided by DeitY shortly.

7) Ensure that the requisite tools are deployed to measure the service levels of the official involved in the provisioning of the service and the quality of infrastructure services.

8) Issuance of Government Orders

9) Transactions on MIS & publishing on website (using service directory)

b) To manage activities at the District Level, the State should

1) Give directions to the Districts to constitute the District eGovernance Societies and transfer the seed money. It may be noted that the seed money has to be transferred to those districts which have at least 70% CSCs operational against the planned number of CSCs

2) Involve the District Collectors/DM/ or any other officer designated for implementing e-District to engage the District Project Managers, as per the guidelines issued by GoI, and use them in the implementation of e-District, specifically in planning and implementation of various activities at the district level

    a. Data Digitization

    b. Site preparation

    c. Commissioning of Hardware

    d. Training (Computer awareness)

    e. Training (Application); etc.

3.2 Flexibility of approach

Given that the focus of the e-District project is on number of transactions, the e-District project provides flexibility to the States to implement the project in the following manner:

1. The State Government may decide the best way to implement the project by "bundling" the entire scope of work to one System Integrator or allow multiple vendors to take responsibility for various components of the Scope of Work. For example, the State Government may decide that the Data entry or Training should be "unbundled" from the main scope of work and be selected through various tenders. While doing this, the State Government should ensure that there is no dilution of responsibility towards completion of the scope of work and delivery of services.

2. The Empowered Committee has approved the DPR under various heads (like Hardware, Software, Data entry, Site preparation etc.) within the overall framework of e-District Scheme. It is appreciated that various State Governments may have unique scenarios where the expenditure may not be as per the amounts or items sanctioned under these heads. In such a scenario, the State Government may put up the proposal for approval/ decision of the State Apex Committee under the Chief Secretary for re-apportionment of Grants-in-Aids components amongst the various heads, provided the overall financial limit is not exceeded. The appropriate approvals would be taken from competent authorities and the decision would be communicated to the States shortly.

3. The State Government has the flexibility to roll-out the services as quickly as possible. There are no constraints on choosing a particular application as long as the State Governments are using the centralised architecture.

3.3 Monitoring & Evaluation

The e-District project would be implemented using a decentralised model, where the States will take all implementation related decisions within the broad guidelines provided in this document. DeitY would keep track on the progress of the project on the basis of the following key milestones and prescribed timelines:

1) Finalization of Portfolio of Services & Design of Application Architecture (T+ 1 month)

2) Finalization of Functional & Technology Architecture (T+1 Month)

3) DPR Preparation and Approval by State Apex Committee (T+ 6 weeks)

4) Issue of RFP (T+ 2 month)

5) Selection of the SI in a State (T+ 4 months)

6) "Go Live" of Phase I Rollout with 10 services across the State (T+ 12 months)

7) "Go Live" of Phase II of the e-District Project with the entire portfolio of services (T+ 18 months)

The detailed implementation strategy has to be developed by the concerned State. The decisions pertaining to the e-District project within the boundaries of e-District Guidelines / Integrated framework should be taken by the Apex Committee of that particular State. It is expected that this would help in addressing the unique requirements of the State and would expedite the implementation.

However DeitY will support and provide guidance to the State in case of any issues pertaining to the guidelines already issued or to provide clarity on any particular issue.

3.4 Legal Framework

The IT Act provides for use of electronic records and digital signatures by the State Governments and also empowers the State Governments to authorize service providers for delivery of services. However, very few States have formulated Rules under the provisions of the IT Act. DeitY has picked up the best provisions from the various IT Rules formulated by the State Governments and developed "*Model Electronic Service Delivery (EDS) Rules*" for adoption by all States. These Model ESD Rules have been vetted by the Ministry of Law and Justice, Government of India and therefore, can be processed for issuance by the States on a fast-track The EDS Rules will help the State Governments in accelerating the delivery of public services in electronic mode and especially, delivery of Type I services across the counter.

3.5 Financial Guidelines

3.5.1 Fund release - Instalments

All funds under the 'e-District' Project will be released to the State Designated Agency (SDA) identified by the State Government in the project proposal/DPR or earlier in their communications to DeitY. Funds under this scheme may also be released directly to the District e-Governance Society for which the State has to include all such details in DPR.

The funds would be released in 4 instalments on accomplishment of prescribed milestones, and the State Government certifying the utilization. The prescribed milestones are listed below.

3.5.1.1 First Instalment

The first instalment will be released as per the following:

a) Rs.10 Lakhs each for Non Pilot States for DPR & RFP preparation

b) Rs.10 Lakhs per district for all States (In the first phase funds will be released only for those districts where 70% CSCs have been rolled out)

3.5.1.2 Second Instalment

The second instalment amounting to 20% of the total project cost, would be released subsequent to administrative and financial approval of the DPR by the State Apex Committee.

All subsequent releases would be subject to submission of utilisation certificate by the SDA & release of State Government commitment & utilisation of the same.

3.5.1.3 Third Instalment

The third instalment of 50 % of the project cost would be released subject to meeting all of the following conditions:

a) Utilization of released funds
b) Issue of Government Orders for enabling e-services in the State.
c) Formation of DeGS in all the districts
d) State approval of Base Line study, BPR, FRS, Selection of System Integrator and Signing of Contract with the System Integrator
e) Selection of the System Integrator
f) Further the Pilot States should have obtained STQC certification to avail the 3rd instalment of the funding under the e-District MMP.

3.5.1.4 Fourth Instalment

The fourth and final instalment of 30% of the project cost would be released subject to meeting all of the following conditions:

a) Utilization of released funds
b) Testing of application by STQC (for non-Pilot States), launch in all the districts of the state with rollout of the entire portfolio of services

One of the conditions for the release of funds to the districts is that it should have at least 70% of the planned CSCs operational. It may be noted that the 2nd instalment has been released for the districts which meet the 70% operational CSC criterion.

The SDA should ensure that the fund transfer to the districts should be as per these guidelines.

3.5.2 Sharing of project Costs – GIA and ACA

The National Rollout of eDistrict MMP Scheme cost is to be shared by DeitY (through Grants in Aid – GIA) and the States (Additional Central Assistance – ACA) in the ratio of 75:25 respectively. The State share will be met from the Additional Central Assistance (ACA) provided by the Planning Commission. In particular, the States will bear cost of site preparation and data digitization from the ACA as per the following formulation:

1. 100% of site preparation cost will be funded by ACA.
2. 5/6th of Data Digitization cost will be funded by ACA, remaining 1/6th of the cost will be funded by DeitY, GOI as central share.

The State Government (may) meet their share of the revenue support by using the Additional Central Assistance (ACA) for the NeGP, provided by the Planning Commission. Alternatively, the State Government may meet their share of the revenue support by making a provision in their budget

3.5.3   Process of release of ACA

Upon approval of the Empowered Committee, DeitY, GOI regarding release of the 2nd, 3rd and 4th instalment towards revenue support, the GIA component of the revenue support will be transferred to the State Designated Agency directly by the DeitY. For the release of ACA, a request letter will be sent to the Ministry of Finance, Government of India to release Additional Central Assistance (ACA) for the NeGP to the respective State Governments. The minutes of the Empowered Committee, DeitY, GOI and the actual requirement of fund are to be enclosed along with the request letter sent to the Ministry of Finance. A copy of the same will also be sent to the Planning Commission.

Upon receipt of the above request from the DeitY, GOI, the Department of Expenditure, Ministry of Finance, Government of India will issue a sanction letter to release payment to the respective State Government with a copy to the Finance Department of the individual State Government.

Accordingly, the State Designated Agency is to send a proposal to the State Finance/ Planning Department with a request to release ACA sanctioned by Ministry of Finance, GOI under NeGP. The fund will be credited to the same eDistrict Project Bank Account opened exclusively by the SDA for the eDistrict project. The expenditure under this also will be accounted for by the SDA accordingly. The utilization Report sent to the DeitY will consist detail of expenditure incurred under the DeitY Budgetary allocation as well as the ACA fund released for the eDistrict Project

3.6   Tracking of Funds & Submission of Utilization Certificates

The State is required to keep a meticulous track of the funds that are being utilized. They are also required to provide regular updates to DeitY about the utilization of the funds. The eDistrict project funds shall strictly be used only to the tasks pertaining to eDistrict MMP.

The utilization certificates (UC) for the expenses made as per the amount sanctioned has to be submitted to the DeitY in the specified format on quarterly basis for the duration of the implementation of the eDistrict Scheme.

For the expenses incurred at the Districts level (except the Seed Money) the SDA will collect the utilization certificates from the District Collector/Magistrate quarterly and collate them for submission of UC to DeitY.

Annexures
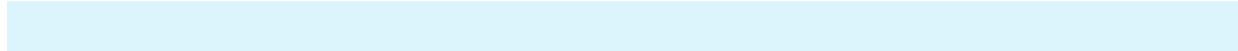
Annexure A: Potential Portfolio of Services

A. National Mandated Services

Five service categories have been identified at the national level which shall be taken up for implementation by all States which agree to participate in the e District MMP.

a) **Issue of Certificates** including services: Birth, Death, Domicile, Nationality, Caste, Marriage, Income, Employment, etc.

b) **Social Welfare Schemes** including services – Social Welfare Pensions (Old age, Widow, Handicap, Destitute), Scholarships.

c) **Revenue Court** including services – including Case listing, Case adjournment, Stay orders, Final orders, Status of execution of orders: information, tracking, filing of miscellaneous applications. Also, Government dues and recovery, as part of Land Revenue – including issue of notices, record payments, track default processes, updation of treasury receipts, etc.

d) **Ration Card** related services including change of address, addition or deletion of members, application for issue of duplicates, etc.

e) **Grievance redressal and RTI services**

   - Grievance redressal - As "The Right to Service Delivery and Grievance Redressal Bill" is already under consideration with the Parliament, the e-District project should include "Grievance redressal" as a sub-service which should cover grievance application, tracking, monitoring, and redressal of the grievances.

   - RTI services will be applicable to all departments/offices which have been provided with ICT infrastructure and connectivity for delivery of services under e District Scheme.

B. State Optional Service Categories

The State has to add 5 service categories apart from the mandatory service categories mentioned above. However, in case, funds are available, additional categories of services may also be added by the State, subject to adherence to project timelines.

An indicative list of service categories is provided below. States would be free to add additional services other than those indicated, subject to their meeting the criteria indicated in these guidelines.

Licence	Electoral services	Status Update services
Education	Fisheries	Industries
Health	Excise	Information services
Employment	Utility services	Revenue
Transport	Grants/ Loans	

It may be noted that sub services (like add/modify/delete) will be part of the same service and will be counted as one service.

While identifying the services the States should also consider leveraging the services covered under the SSDG project (State Portal, SSDG and Electronic Form project).

Annexure B: Immediate activities to focus on for Type 1 Services

The State / UT should follow the following process for the selection of services:

A. **Identification:** States / UTs are required to identify a department or MMP where a Digital Database is readily available – either as a centralized database or distributed database. The quality of data should be in a condition amenable to enhancement to a level where certificates/services can be provided immediately. Some potential departments could be:

    1. Public Distribution System

    2. Land Records

    3. Registration

    4. Transportation

    5. Municipalities / Urban Local Bodies / Panchayati Raj

    (It may be noted that these are MMPs, but the eDistrict project can act as platform for the delivery of citizen services in these areas.)

    The data available with these departments would help in providing significant number of services "Across the Counter" e.g. Copy of land record service can be provided across the counter. The Type 2 services should have an attainable target and roadmap for upgradation to Type 1. The strategy for data digitization should inherently be structured around verification of the contents of the Database and adoption of a process of updation in the database, as and when any changes take place.

B. **Undertaking preparatory activities:** Having identified all the services at the district and sub-district level, there are several activities which need to be undertaken before the online delivery of service for Type 1 services can commence.

    - **Identification & planning**
        - Registers and data to be digitized
        - Cut-off date for data digitization
        - Logistics of data digitization (whether at office level, district level or State level)
        - Database systems to be used for data digitization (e.g. MySQL / Oracle, etc.)
        - Assessment of quality of data to be digitized for delivering the services (usability)
        - Process for continuous verification and correction of the digitized data

    - **Plan to establishing ownership of digitized data with State Government**
        - Fixing the ownership of the department and timeline for completion of digitization
        - Logical Checks for checking the accuracy of data
        - Digital signing of the digitized date by the authorized officials

    - **Selection of Agencies for data digitization**

- Identification and empanelment of institutions for data digitization - CSC network can be leveraged for digitization of records at grass root level. If State has already identified agencies then this step is not required.

- Data digitization can start prior to selection of System Integrator (SI) to reduce the implementation time frame. Under the e-District MMP it is proposed to appoint an SI who will undertake all activities regarding implementation of the e-District Project in the State. However, independent of the appointment of the SI, the State Government may start Data Digitization activity.

- Data digitization fund from e-District project and services of State Project Management Unit (SPMU) selected under e-District project for implementation of e-District project in Stat may be used for managing the data digitization.

- **Digitization of data (Scanning/data entry of existing records)**

  - Process for quality check of data and ownership transfer of data

  - Porting of the digitized data to State Data Centre (SDC) and making it available for e-District and other MMPs

- **Ensuring dynamic updation of data**

  - Process for continuous addition, verification and correction of the digitized data - Service / Solution workflow should ensure dynamic updation of data.

- Digitization of data shall be one time activity for services. The proposed BPR of services under e-District project shall ensure dynamism of data. The data shall be updated on delivery of services to the citizens.

  - Capacity Building and Institutional strengthening to manage Digital Signature

  - Identification of Officials authorized for delivering services/ authenticating the electronic records

  - Establishing the State level agency or procedure for managing the digital signatures

  - Procurement of PKI (Private Key Infrastructure /Digital Certificate) for the authorized officials

  - Training on how to use Digital Signature Certificate and eDistrict application

Annexure C : Sourcing of Applications

Sl No	Source of Application	Manner of integrating the application with e-District	Pre-requisites	Responsibility of making the application available
1	Applications developed in e-District Pilot, for rollout within the same state	Self-explanatory	Certification	Same State
2	Applications developed in e-District Pilot in another state	1. A comprehensive list of applications developed in pilot Phase of e-District in pilot states, and fit for replication will be prepared by DeitY, along with functionality. 2. DeitY will also arrange to host the applications in the eGov App Store, for direct use by any state, or for download. 3. The e-District SI of States intending to use any of such applications, will be required to make the necessary customization and deploy.	1. Certification 2. Hosting by DeitY centrally in a cloud environment, in the eGov App Store 3. Customization by the receiving State	1. DeitY 2. Receiving State
3.	Applications developed in the same State, and functioning smoothly. (The applications might have been developed by NIC, line department or by private SI.	Application integration under e-District project through SSDG middleware and exposed over State Portal	1. Operational SSDG 2. Application integration tools, in the absence of 1 above.	Respective states
4.	Fresh applications	Fresh development under e-District project	-	Respective States

Annexure D : Revised responsibilities of SPMU for application development

In line with the Integrated Framework and to achieve faster roll-out of the e-District project in the State, the State Government has to relook at the immediate project milestones. Accordingly the SPMU should be tasked to prioritize the right set of activities. This section provides guidance on how to revise the priorities of the SPMU and reduce the timelines for project implementation.

As an immediate step, the State Government should look into the detailed Project Plan of the SPMU (for both Pilot and Non-Pilot States) and analyze the time & effort spent in carrying out various activities and the immediate outcomes it would achieve.

The Pilot e-District projects have shown diminishing returns of undertaking the BPR in the traditional manner, i.e. conducting "AS-IS", "TO-BE" and developing FRS in a sequential manner. This is because there is a high degree of process similarities of a service across various and there are no new innovative BPR which could not be anticipated without doing an elaborate exercise. Hence for the national roll-out, a different approach of BPR is being suggested for faster implementation. This approach should encapsulate the application development Strategy mentioned in Section 2.1 and Annexure C.

Based on these Guidelines the State needs to suitably revise the immediate priorities for the SPMU in a particular State.

1. For the Pilot States, the BPR has already been completed for the services taken up under the pilot. It is expected that the application is rolled out immediately to all the districts with the same services & Government orders and inter alia the replication of the BPR would happen for existing services. In case a few services have been added under the roll-out, the BPR may be carried out subsequent to the roll-out phase. Hence the BPR, FRS and SRS exercise needs to be carried out at a later stage for these services.

2. For Non-Pilot States, DeitY would make available a few "Apps" (refer Section 2.1 and Annexure C) which can be used by the States to "adopt" it in their particular State. These "Apps" would be provided along with the design document & source codes. The State Government has to identify a particular "App" for the roll-out. Since these "Apps" are successful applications and hence replication of this application would ensure the replication of the BPR for the services covered under this "app". In case a few services chosen by the State are different from the "App" chosen, the BPR may be carried out subsequent to the roll-out. Hence the BPR, FRS and SRS exercise needs to be carried out at a later stage for these services..

3. For States choosing to develop an application afresh, the SPMU can provide the Functional Requirement Specifications for the services in the RFP document at a generic level (the FRS documents of the pilot States would be made available to the SPMUs). The generic FRS should incorporate all the key BPR recommendations for a particular service made in the Pilot States. This would help the SI bidders to compute the effort for application development. Subsequently the detailed FRS has to be developed by the SPMU along with the SI. This approach would eliminate the duplication of effort between the SI & SPMU in creating the FRS document.

4. The BPR should evaluate the architectures suggested in Section 2 of this document and ensure that the appropriate architecture is reflected in the SI RFP.

5. The SPMU should focus on the RFP preparation immediately after the finalization of the application development strategy. The RFP should detail out (amongst other details like Hardware, Networking, Site preparation etc.) the design documents of the "App" or the e-District pilot application. Once the SI has been selected, the source code should be provided to the SI for configuration / customization / maintenance. The Functional Requirement Specification document would document the existing features of the "App" and further identify the changes required to be undertaken.

6. The deliverables of SPMU (for example BPR, FRS and review of SRS) would be deemed accepted on successful User Acceptance Test (UAT) of the application by the State Government. As a check, the STQC certification would ensure that there is consistency between the application and the design documents (including the FRS, SRS).