

Government of Tamil Nadu

Guidelines for Integrated e-Services Delivery Manual

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Glossary & Abbreviations	
AMC	Annual Maintenance Contract
AEDC	Assistant EDistrict Coordinator
BoM	Bill of Materials
CMMi	Capability Maturity Model Integration
CERT/IN	The Indian Computer Emergency Response Team
CDAC	Centre for Development of Advanced Computing
CSC	Common Service Centre
CoC	Corporation of Chennai
CA	Certifying Authority
DCO	Data Centre Operation team
DC	District Collector
DR	Disaster Recovery
DeGS	District eGovernance Society
DSC	Digital Signature Certificate
EDC	EDistrict Co-ordinator
ERP	Enterprise Resource Planning
ELCOT	Electronic Corporation of Tamil Nadu Limited
G2B	Government to Business
G2C	Government to Citizen
GoI	Government of India
H/O	Head Quarters
HMIS	Health Management Information System
IT	Information Technology
ISP	Internet Service Provider
ISO	International Organization for Standardization
LAN	Local Area Network
IA	Implementing Agency
IPS	Intrusion Prevention System
IP	Internet Protocol
ICT	Information and Communication Technology
MIS	Management Information System
MoU	Memorandum of Understanding
NIC	National Informatics Centre
NeGP	National eGovernance Plan
NeGD	National eGovernance Division
OEM	Original Equipment Manufacturer

OS	Operating System
O&M	Operation and Maintenance
PACCS	Primary Agricultural Credit Cooperative Societies
PeMT	Project eMission Team
PKI	Public key Infrastructure
POP	Point to Point
RA	Registration Authorities
SCA	Service Centre Agency
SEG	State eGovernance Group
SeMT	State e-Gov Mission Team
SSL	Secure server layer
SSDG	State Service Delivery Gateway
SI	System Integrator
SLA	Service Level Agreement
SDC	State Data Centre
SQL	Structured Query Language
STQC	Standardization Testing and Quality Certification
TNeGA	Tamil Nadu eGovernance Agency
TNSDC	Tamil Nadu State Data Centre
TNSWAN	Tamil Nadu State Wide Area Network
TACTV	Tamil Nadu Arasu Cable Television
UCSC	Urban Common Service Centre
UPS	Unstopped Power Supply
USB	Universal Service Bus
VPRC	Village Poverty Reduction Committee
VPN	Virtual Private Network

1. Introduction

Government of Tamil Nadu envisages that the services that are provided manually by the district administration would be delivered online in electronic mode wherever feasible.

The National e-Governance Plan (NeGP) of the Govt. of India aims to make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man. The Government has established Common Service Centres (CSCs) for this purpose through Public Private Partnership mode (PPP), ELCOT, TACTV, PACCS (Primary Agricultural Credit Co-operative Societies) etc.

The CSCs are planned to deliver G2C and G2G services initially and G2B services in the future depending on viability. The eDistrict project was conceptualized to improve citizen experience with respect to availing Government Services at District level and enhance the efficiencies of the various Departments at the district-level to enable seamless service delivery to the citizen. This initiative have provisions for smooth integration of various departments like Revenue, Food and civil supplies, School & Higher Education, Social Welfare, Minorities, Forests, Rural Development, Agriculture, Election, Home, Family Welfare, Transport, Health, Land Records, and Registration etc. for providing services to the citizens through a common delivery platform. E-District helps in creating an electronic workflow system for the district administration and providing efficient individual department services through Common Service Centers (CSCs) which would be the primary front-end delivery channels envisaged under NeGP by Department of Electronics and Information Technology (DeitY), Ministry of Communication and Information Technology (MCIT), Government of India (GoI).

2. Objective

E-District project is aimed at creating an integrated Information Technology (IT) platform for District administration and its subordinate offices, to use IT, primarily to increase information quality, transparency, improve overall efficiency and effectiveness in the Government processes along with convenience in operations.

The broad objectives of the project include:

1. To provide easy access of Government services to citizens.

2. Reengineering of the internal processes of District Administration, Subordinate offices and participating departments to increase functional efficiency.

3. IT enabling of internal processes of District Administration and its subordinate offices to increase operational efficiency.

4. Seamless integration of various departments for providing services to the citizens by integrating various databases.

5. Providing individual department services efficiently through delivery channels like Common Service Centers (CSCs), Mobile Devices etc.

6. Establishing the Operating Procedure.

7. Creation of IT infrastructure for rolling out e-Governance plan up to Village levels.

8. Develop capacities of human resources of the Government to operate and maintain IT enabled systems and applications with confidence and provide services to the people effectively and efficiently.

9. To utilize IT to empower the common man in his dealings with the bureaucracy.

10. To make it easy for the District Administrative Officials to discharge their functions efficiently.

3. Scope

The Electronic Delivery of services has been proposed to facilitate the citizen to apply for Government services through the Government authorized service delivery outlets such as Common Service Centres(CSC), Taluk Facilitation counters(TFC), Primary Agriculture Credit Cooperative Societies (PACCS) etc., which are established in the nearby locations of the citizens. Accordingly the eDistrict Project has been envisaged.

The eDistrict application is fully automated with workflow system. Various Certificate services of the Revenue department, Welfare Schemes of Social Welfare Department, Scholarship Schemes of AD&TW Department and BC&MBC Department are offered through eDistrict Project.

The system handles the complete process right from receipt of application from citizen till the approval of the Certificates/ sanction of scheme benefits by Competent Authorities. It brings transparency by enabling the citizen to view the status of their application online and get SMS alerts as and when their application gets approved by competent authorities. It also enables the higher officials of the State to view and monitor the process through MIS (Management Information System) reports.

All the Data created through the eDistrict application including the certificates are maintained at State-level and hence controlled centrally. Also, the applications are scrutinized at District-level and records of all data generated in the workflow are maintained by the system for any future reference or auditing purposes.

4. E-Services

4.1 Existing e-Services.

The following are the services provided under e-District/SSDG project.

Certificate Services (Revenue)

1. Issuance of No Graduate Certificate

2. Issuance of Deserted Women Certificate
3. Issuance of Income Certificate
4. Issuance of Nativity Certificate
5. Issuance of Community Certificate

Scholarship Services

1. Scholarship disbursement for post-matric students of BC/MBC
2. Scholarship disbursement for post-matric students of SC/ST

Social Welfare – Marriage Assistance

1. Moovalar Ramamirtham Ammaiyar Ninaivu Marriage Assistance Scheme
2. EVR Maniammaiyar Ninaivu Widow Daughter Marriage Assistance Scheme
3. Annai Terasa Ammaiyar Ninaivu Orphan Girls Marriage Assistance Scheme
4. Inter caste Marriage Assistance Scheme
5. Dr. Dharmambal Ammaiyar Ninaivu Widow Re-marriage Assistance Scheme

Social Welfare – Girl Child Protection

1. Tamil Nadu Chief Minister's Girl Child Protection Scheme 1
2. Tamil Nadu Chief Minister's Girl Child Protection Scheme 2

4.2 Adding New e-Services.

In addition to the above, the following services are in various stages of Software development lifecycle, and they will be rolled out in phases through a System Integrator.

e-Distict Service Portfolio				
Sl. No.	**eDistrict / Non-e-District**	**Category/ Department**	**Description of Service**	**Application Developer**
1	Non-e-Dist	Revenue	Solvency Certificate	NIC
2	Non-e-Dist	Revenue	Distress Relief Scheme	NIC
3	Non-e-Dist	Revenue	Farmer Security Scheme	NIC
4	Non-e-Dist	Revenue	Birth Certificate for villages	NIC
5	Non-e-Dist	Revenue	Death Certificate for villages	NIC
6	Non-e-Dist	Revenue	Issue of Patta Transfer	NIC
7	Non-e-Dist	Revenue	Late Registration of Birth	NIC
8	Non-e-Dist	Revenue	Late Registration of Death	NIC
9	Non-e-Dist	Revenue	Online Grievance Day petition	NIC
10	Non-e-Dist	Revenue	OBC certificate	NIC
11	Non-e-Dist	Revenue	Widow Pension Scheme	NIC
12	e-Dist	Revenue	Old Age Pension Scheme	NIC
13	Non-e-Dist	Revenue – Survey & Land Records	Issue of Chitta extract (Separately or together with adangal & FMB extract)	NIC
14	Non-e-Dist	Revenue – Survey & Land Records	Issue of Adangal extract (Separately or together with Chitta & FMB extract)	NIC

e-Distict Service Portfolio				
Sl. No.	**eDistrict / Non-e-District**	**Category/ Department**	**Description of Service**	**Application Developer**
15	Non-e-Dist	Revenue – Survey & Land Records	Issue of FMB extract(Separately or together with chitta & adangal extract)	NIC
16	Non-e-Dist	Revenue – Survey & Land Records	Patta Transfer – Not involving SD/ applied by public	NIC
17	Non-e-Dist	Revenue – Survey & Land Records	Patta Transfer –involving SD/ applied by public	NIC
18	Non-e-Dist	Revenue Court	Appeal before RDO	NIC
19	Non-e-Dist	Revenue Court	Appeal before DRO	NIC
20	Non-e-Dist	Adi Dravidar Welfare	GoI Post matric Scholarship for SC Students	NIC
21	Non-e-Dist	Adi Dravidar Welfare	GoI Post matric Scholarship for ST Students	NIC
22	Non-e-Dist	Adi Dravidar Welfare	State Post Matric for SC converted to Christian Student	NIC
23	Non-e-Dist	Adi Dravidar Welfare	Free Education upto Degree Level (Arts & Science)	NIC
24	Non-e-Dist	Adi Dravidar Welfare	Free Education upto PG Level - Women (Arts & Science)	NIC
25	e-Dist	Revenue	Issuance of Certificate for Destitute children for admission in Orphanage School	NIC
26	e-Dist	Revenue	Issuance of Legal Heirship Certificate.	NIC
27	Non-e-Dist	BC, MBC & MW Department	Educational Assistance to the students in Professional Courses - BC/MBC	NIC
28	Non-e-Dist	BC, MBC & MW Department	Educational Assistance to Graduates - BC/MBC	NIC
29	Non-e-Dist	BC, MBC & MW Department	Educational Assistance to Polytechnic Students - BC/MBC	NIC
30	Non-e-Dist	BC, MBC & MW	Issuance of Post Matric Scholarships	NIC

e-Distict Service Portfolio				
Sl. No.	**eDistrict / Non-e-District**	**Category/ Department**	**Description of Service**	**Application Developer**
		Department	- BC/MBC	
31	Non-e-Dist	Transport Department	Filing of LLR Application	NIC
32	Non-e-Dist	Transport Department	Booking of Appointments	NIC
33	Non-e-Dist	Transport Department	Request for fancy number	NIC
34	Non-e-Dist	Transport Department	Offline Tax Payment (Challan Generation)	NIC
35	Non-e-Dist	Industries and Commerce	Entrepreneur Memorandum Part I (ONLINE)	NIC
36	Non-e-Dist	Industries and Commerce	Entrepreneur Memorandum Part II (ONLINE)	NIC
37	Non-e-Dist	Industries and Commerce	New Entrepreneur & Enterprise development scheme	NIC
38	Non-e-Dist	Industries and Commerce	Subsidies given by Industries Department	NIC
39	Non-e-Dist	Registration & Stamps	Offline Payment (Challan Generation)	NIC
40	Non-e-Dist	Registration & Stamps	e-Visit	NIC
41	Non-e-Dist	Registration & Stamps	Application for Marriage Certificate	TCS
42	Non-e-Dist	Registration & Stamps	Application for Encumbrance Certificate	TCS
43	Non-e-Dist	Registration & Stamps	Online EC status	TCS
44	Non-e-Dist	Registration & Stamps	Application for Certified Copy	TCS
45	Non-e-Dist	Registration & Stamps	Pre-Registration /Slot Booking	TCS
46	Non-e-Dist	Registration & Stamps	Registration of Society	TCS
47	Non-e-Dist	Registration & Stamps	Registration of Firm	TCS
48	Non-e-Dist	Registration & Stamps	Firm name Change	TCS
49	Non-e-Dist	Registration & Stamps	Dissolution of firm	TCS

e-Distict Service Portfolio				
Sl. No.	**eDistrict / Non-e-District**	**Category/ Department**	**Description of Service**	**Application Developer**
50	Non-e-Dist	Registration & Stamps	Amendments of society	TCS
51	Non-e-Dist	Registration & Stamps	Submission of Appeal	TCS
52	Non-e-Dist	Election	Application for Transfer	CMC
53	Non-e-Dist	Election	Application for inclusion of Name in the Electoral Rolls	CMC
54	Non-e-Dist	Election	Application of change of details	CMC
55	Non-e-Dist	Employment	Registration with Employment Exchange	Onward
56	Non-e-Dist	Employment	Renewal with Employment Exchange	Onward
57	Non-e-Dist	Municipal Administration	Birth Certificate	BCT
58	Non-e-Dist	Municipal Administration	Death Certificate	BCT
59	Non-e-Dist	Municipal Administration	Birth Certificate Corrections / Name inclusion	BCT
60	Non-e-Dist	Municipal Administration	Death Certificate Corrections	BCT
61	Non-e-Dist	Municipal Administration	Applying for Building permission / Building Plan Approval	BCT
62	Non-e-Dist	Municipal Administration	New Assessment request for Property Tax	BCT
63	Non-e-Dist	Municipal Administration	Application for New Water Connection & UGD	BCT
64	Non-e-Dist	Municipal Administration	Name Transfer of Water Connection & UGD	BCT
65	Non-e-Dist	Municipal Administration	Vacant Land Tax	BCT
66	Non-e-Dist	Municipal Administration	Application for New Trade License	BCT

e-Distict Service Portfolio				
Sl. No.	**eDistrict / Non-e-District**	**Category/ Department**	**Description of Service**	**Application Developer**
67	Non-e-Dist	Municipal Administration	Collection of Profession Tax	BCT
68	Non-e-Dist	Municipal Administration	Application forDangerous and offensive Trade License	BCT
69	Non-e-Dist	Municipal Administration	Change in usage of Water Connection & UGD	BCT
70	Non-e-Dist	Department of Ex-Service man's welfare	Ex-Service man Registration (7 forms)	NIC
71	Non-e-Dist	Department of Ex-Service man's welfare	Grievance Redressal	NIC
72	Non-e-Dist	Department of Ex-Service man's welfare	Issue of Certificates	NIC
73	Non-e-Dist	Commercial Tax	Dealer Registration (TIN)	TCS
74	Non-e-Dist	Commercial Tax	Dealer Registration (CST)	TCS
75	Non-e-Dist	Civil Supplies	Online Consumer Grievance	NIC
76	Non-e-Dist	Civil Supplies	Application for New Family Card	OAS
77	Non-e-Dist	Civil Supplies	Issue of Duplicate Family Card	OAS

5. Core Infrastructure

5.1 State Data Center (SDC)

5.1.1 Introduction

Tamil Nadu State Data Centre (TNSDC) is one of the core e-Governance back bone infrastructure under National e-Governance Plan (NeGP). It is a shared scheme between State and Central Governments as per the State Data Centre (SDC) Guidelines of Department of Electronics and Information Technology (DeitY), Government of India (GOI). Tamil Nadu is the first State in the country to obtain the ISO/IEC 20000-1:2005 and ISO/IEC 27001:2005 Certification for the Data Centre operations and for Management of Information Security which is an important milestone in the operation of TNSDC.

TNSDC is being maintained with a well defined Service Level Agreement (SLA) for ensuring 24 X 7 operations. TNSDC is a highly secured infrastructure in which the Government departments can host their applications. Some of the Government applications which are operational in TNSDC are Health Management Information System (HMIS), Chennai Metro Rail Project, and Enterprise Resource Planning (ERP) for Priceless Fan, Mixie, Grinder and Priceless Laptop scheme etc. The TNSDC is currently serving the complete requirements of more than 15 departments of the Government and has currently reached 80% of its maximum capacity both in terms of physical space and IT infrastructure. TNSDC is already in expansion mode.

The following are the common Infrastructures available in SDC for Departments

1. Redundant UPS power backed by D.G. set
2. Cooling
3. Rack space
4. Network connectivity (inside SDC)
5. Network security Firewall (Hardware and Software)

6. Physical access control security like CCTV, access card, Biometric access control , etc

7. Shared Storage Area Network (SAN) limited to 1 – 2 TB per department and mission mode projects. Necessary HBA cards for servers [ex. Database server for SAN]

8. Server load balancer

9. File level backup using EMC Networker only for supported OS.

10. Port level monitoring of servers (applications are not covered)

11. Remote access only through TNSWAN/NICNET extending between host to host limiting to web and application servers only (as per policy)

12. Remote VPN provision for web and application servers using pre-shared key.

13. 24 x 7 data centre operator resource monitoring & support.



Figure: 1 State Data Centre.

5.1.2 Process to host the server and application at SDC

The department shall follow the steps below to host their server, application and to integrate with the eDistrict/SSDG Portal.

✓	User department along with Application Architect to approach ELCOT Perungudi
✓	ELCOT Perungudi to provide hardware conformity, licenses, subscription, support parameters to user department
✓	If the user Department has its own H/W as per the Standard prescribed by SDC, then obtain proforma invoice for 4% SDC charges per year on total H/W cost for 5 years from ELCOT Nandanam. The H/W may be procured through ELCOT also.
✓	Based on proforma invoice user department transfers/pays the funds to ELCOT. If the Department buys the H/W through ELCOT then delivery may take upto 8 weeks time or more.
✓	Within this 8 weeks time period, user department may complete application security audit from CERT-IN / ELCOT Empanelled auditing agency with the certificate.
✓	User department has to produce invoice copy, bill of materials, purchase order, delivery challan to ELCOT Perungudi for verification, inventory and acceptance. Application architecture details are also to be handed over.
✓	The hardware is then placed inside TNSDC with DCO's (Data Centre Operation team) support. All the document copies are to be handed over to DCO also.
✓	Hardware vendor rack mounts the servers, loads OS, device drivers, raid configuration, OS hardening, etc
✓	Application architect is involved in application hosting as per SDC specifications fulfilling necessary formalities in addition to security guidelines adherence.

- ✓ SLA between hardware vendor and user department, SLA between ELCOT and user department, if any, AMC/Warranty details, contact details of user department, hardware vendor, application integrator, ELCOT coordinator, application signoff document should be completed in all respects.

5.1.3 Guidelines to be followed

A) The items/hardware received at ELCOT Perungudi is initially received at stores.

B) During the actual inventory, complete contact and telephone details of department co-ordinator, vendor, AMC/Warranty details, ELCOT co-ordinating officer, application architect along with invoice copy, delivery challan, purchase order and bill of materials are to be furnished necessarily along with necessary copies of the same.

C) Actual inventory is made in the presence of department, hardware vendor, ELCOT co-ordinating officer, DCO representative and the same is entered in the inward register and permitted inside TNSDC.

D) Depending on the availability of the rack space, the received items/hardware is provisioned in the staging area for rail kit fixing, OS loading, hardware drivers, etc.

E) The hardware vendor rack mounts the supplied hardware along with necessary drivers inside TNSDC with the presence/support of DCO. OS hardening, RAID will have to be planned during this phase by hardware vendor.

F) From now on application integrator may plan for hosting of the security audited application in co-ordination with DCO. Application architect has to handover the security audit report copy to DCO.

G) On filling up port template, IP template, etc IP address and ports are opened up and network connectivity provided.

H) Backup template may be filled in as a last step by the user department.

I) Due to urgency / unavailability of resources, the department / boards / PSUs may have to procure 42U rack, KVM switch, access switch, LTO-4 tapes, etc at their own cost which should be compatible/specific to TNSDC hosting environment.

J) Licenses / support are insisted in order to avail the support from tools vendors like CA, EMC, McAfee, etc and also to support upgrades / patches / solution during the change over. Even the OS vendor can support over the issue in co-ordinating with the tools vendor.

K) OS hardening, unwanted ports to be closed, unwanted services to be shutdown, password policy enforcements, secure accessing of the premises.

L) Obtaining SSL server certificate preferably from NIC or some of the security certificate service agencies for the co-located servers should follow/implement while hosting the applications in TNSDC.

CHECKLIST

APPLICATION HOSTING REQUIREMENTS AT TNSDC

1. Application security audit certificate from CERT-IN Empanelled agency / ELCOT Empanelled security audit agency.
2. Application architecture and product specification documents.
3. Operating system with licenses & support.
4. Database with licenses & support.
5. Clustering licences for the OS and DB & support.
6. Replication tools license & support for DB.

7. DNS registration/renewal done by the user department.

8. Antivirus license [McAfee] per server.

9. Host Intrusion Prevention System (HIPS) license [McAfee] per server

10. Online DB backup agent license for EMC Networker per DB server.

11. Applicable for SQL server/Oracle. PostgreSQL Database requires script to be enabled for backup which will be automated using EMC Networker.

12. Application hosting, troubleshooting, OS hardening & server upgradation by system integrator/vendor

13. Servers are to be placed in Web, App and DB zone as per SDC architecture

14. Preferred support for PostgreSQL / JBoss, etc.

15. Document relating to

    A) All stake holders contact details including phone numbers.

    B) AMC / Warranty details.

    C) Application architecture.

    D) Security audit certificate.

    E) O &M charges payment copy.

    F) Copy of the invoice.

    G) Copy of delivery challan.

    H) Copy of purchase order.

    I) Copy of bill of materials.

    J) Project signoff documents should be necessarily handed over to DCO.

SDC – LIMITATIONS AT PRESENT

1. For the Present the Common infrastructure at SDC like CA EMS, EMC Networker, EMC clarion SAN storage, HIPS, and Antivirus McAfee have limited support for Open source OS like Ubuntu Linux & BOSS Linux ..

2. Disaster Recovery site is under consideration and hence necessary backup plans may be devised by the department accordingly. Further DR site has a provision for SAN replication and hence any data inside the SAN can be automatically replicated to DR site irrespective of the departments once the DR centre is ready.

LICENCING REQUIREMENTS FROM DEPARTMENTS

Linux OS	Windows OS	Remarks
Enterprise edition	Standard/enterprise/data centre edition	Standard edition does not support cluster
Subscription charges optional	OS license	
Database replication license (if required)	Database replication license (if required)	
Database with support optional	SQL server with license	
HIPs license for 5 years	HIPs software and AMC charges for 3/5 years	McAfee is the HIPs software in SDC
Anti Virus (SDC can extend its license for free till exhausted available AV)	Anti Virus server license for 5 years	McAfee is the AV software in SDC
PostgreSQL DB script backup supported by EMC networker backup for online DB backup (optional)	EMC networker for online Database backup agent module and license (SQL server / Oracle)	EMC networker support is provided for file level backup only by SDC free of cost
CA spectrum license	CA spectrum license	CA EMS tool is being used in SDC
CA Wily license for application url monitoring	CA Wily for application url monitoring	
CA Athena license for PostgreSQL Database monitoring	CA insight license for Database (SQL/Oracle/MySQL) monitoring	

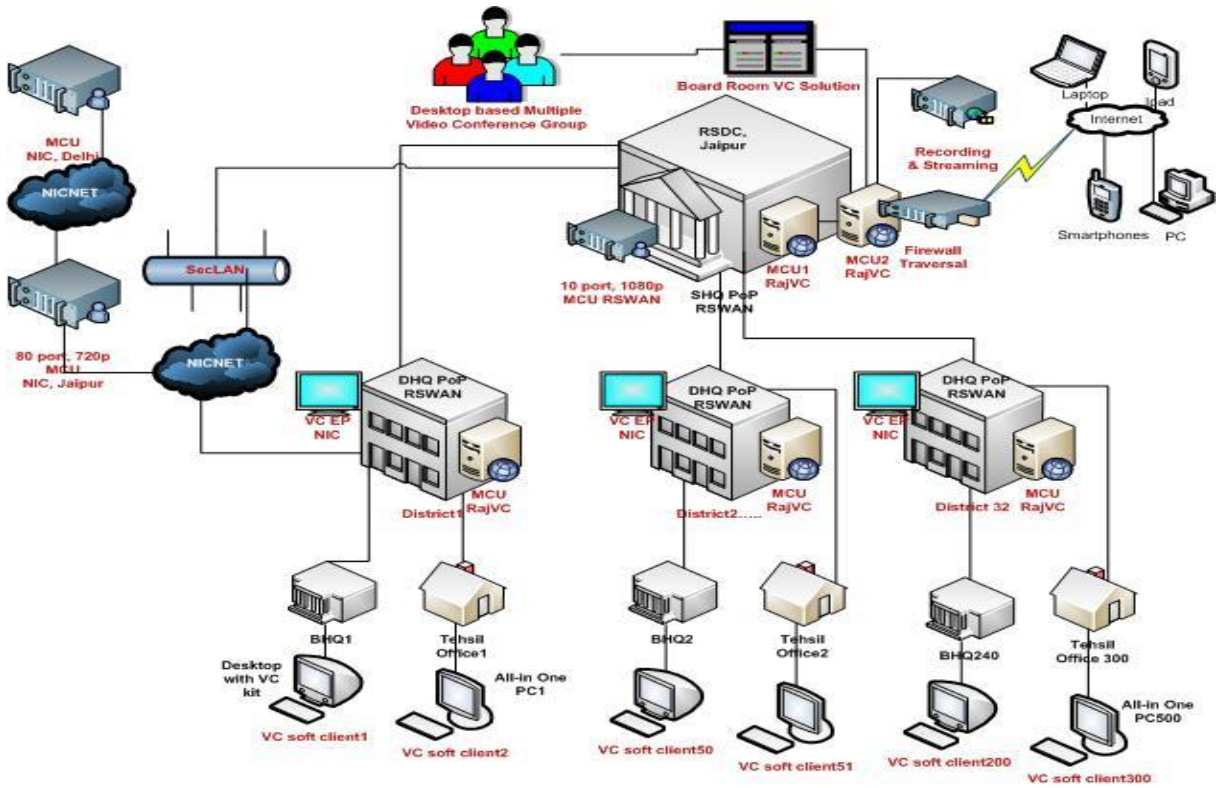
5.2 Tamil Nadu State Wide Area Network (TNSWAN)

5.2.1 Introduction

Tamil Nadu State Wide Area Network is a shared scheme between the State and Central Government. TNSWAN, having 708 Points of Presence (POPs), has been established in the State by ELCOT and services such as Voice, Data, Internet and Video for Government Departments are being provided since 2008. TNSWAN provides highly secured connectivity from 2 Mbps to 8 Mbps bandwidth to all the District Collectorate, Taluk Offices and Block Development Offices (BDOs) thereby facilitating access by the Government departments to the Servers placed at TNSDC.

In order to provide connectivity to Government Departments outside TNSWAN, for getting intranet facility for rolling out their applications and also to avail other services such as Voice, Data, Internet, Video Conferencing, etc., Horizontal Connectivity has been made available through TNSWAN Points of Presence (PoPs). So far, Horizontal Connectivity has been provided to about 1,935 offices of Government Departments such as Commercial Taxes, Tamil Nadu Water Supply and Drainage Board (TWAD Board), Department of Health, Treasuries & Accounts, Registration, Employment & Training, Forest, Tamil Nadu e-Governance Agency (TNeGA), State Health Society, Tamil Nadu Housing Board (TNHB), Survey and Settlement, Tamil Nadu Cement Corporation Limited (TANCEM), Tamil Nadu Civil Supplies Corporation, etc.

TNSWAN Vertical Connectivity is provided to all Districts, Taluks, BDOs and RDOs by using the bandwidth provided by BSNL. In order to strengthen TNSWAN Vertical Connectivity and also to ensure uninterrupted connectivity at the Districts, Taluks, BDOs and RDOs, a secondary 2 Mbps MPLS-VPN (1:1) redundant connectivity is being implemented. Strict SLA is in place for ensuring high availability of TNSWAN.



Multiparty Video Conference Facility at Tehsil/Block level in Rajasthan

Figure : 2 TNSWAN Network

5.2.2 Horizontal Connectivity

- ✓ The Departments which are operating in the premises where there is a PoP can get horizontal connection if the office is within the limit prescribed by ELCOT. Otherwise the Department shall approach a telecom service provider who will provide dedicated line from the PoP.

- ✓ The departments which are in need of horizontal connectivity can send their request to ELCOT. Based on the fund availability, ELCOT may decide on Department's request. Otherwise, the Departments may request for sanction of funds from the State Government.

- ✓ If the horizontal connectivity is provided by ELCOT, then the O&M will the responsibility of ELCOT.

5.3 State Service Delivery Gateway (SSDG)

Introduction

One of the goals of the Government to accomplish the NeGP vision is to cooperate, collaborate and integrate information across different departments in the Centre, States and Local Government. Government systems characterized by islands of legacy systems using heterogeneous platforms and technologies and spread across diverse geographical locations, in varying states of automation, make this task very challenging. The State Service Delivery Gateway (SSDG), a core component in e-Governance infrastructure under the NeGP, can simplify this task by acting as a standards-based messaging switch and providing seamless interoperability and exchange of data across departments, platforms and geographical limits.

The emergence of many e-governance applications for different departments to provide online services to citizens, businesses and government would require increasing interactions amongst departments and with external agencies at various levels in the State Government. Departments would need to develop connectors/adaptors for point-to-point connections between departments creating a mesh as shown in figure below and also tight-coupling between applications. This would lead to applications difficult to maintain and upgrade in case of version change and change in government policies and business rules. The State Service Delivery Gateway (SSDG) is an attempt to reduce such point-to-point connections between departments and provide a standardized interfacing, messaging and routing switch through which various players such as departments, front-end service access providers and back-end service providers can make their applications and data interoperable. The SSDG aims to achieve a high order of interoperability among autonomous and heterogeneous entities of the States based on a framework of e-Governance Standards.

The objectives of the SSDG are:

• To act as a catalyst in enabling the building of Standards-based e-Governance applications with the Gateway as the middleware to ensure interoperability.

• To integrate Centre, State and Local Government applications thereby enabling Integrated Service Delivery and a Service Oriented Architecture (SOA) leading to joined up government.

• To help protect the legacy investments in software and hardware by easily integrating them with other technology platforms and software implementations.

• De-link the back-end departments/Service Providers (SP) from the front-end Service Access Providers thereby

• Ensuring separation of concerns of service access from the service implementation i.e. separates the Portal, CSC, Kiosks etc from the government services which reside in the backend departments.

• Encouraging competition at the front-end by allowing independent service access providers to provide services with varying levels of complexity, cost and service quality levels.

• Shared services can be added on to the core services as and when required, as special common services of the Gateway without affecting the core functionality of the Gateway, thereby providing flexibility and modularity.

• Encourage back-end services to be plugged into the infrastructure as and when they are ready.

• Reduce the cost of e-Governance Projects by rationalizing, distributing and optimizing the services framework

• Use PKI infrastructure for secure transactions. Provision exists for encryption of department payload to ensure confidentiality of department data. The gateway provides digital signature and certificates to all stakeholders interacting with the gateway for identification, authentication and authorization. Transaction and audit logs help track government data.

• Enable transaction logging and time stamping for tracking of transactions and centralized control.

• Help the Departments backend workflow evolve gradually as the Gateway acts as a middleware de-linking the backend from the front end. This means that even the Departments which do not have the complete automation or work flow at the back can still deliver e-Service to the citizens in a limited manner through the Gateway. To cite as an example, a server may be put up at the department for message exchange with Gateway in absence of readily available infrastructure at the department.

In Tamil Nadu SSDG project is implemented and is integrated with the State Portal.

5.3.1 Service Integration Guidelines for Departments

The Departments are encouraged to integrate their online services with SSDG framework to ensure security, interoperability and standard way of communicating through application systems. The following are few steps the Departments need to follow to integrate their applications with SSDG:

1) Send a request to TNeGA/ Directorate of e-Governance with the application details.
2) Feasibility study by the Implementation Agency (IA) of SSDG.
3) If the Department has a proper workflow-based application, then the IA will help the Department to integrate their services with SSDG. There is a minimum effort required from the Department's side to modify the code for integration.
4) The Implementation Agency will provide the application-specific connectors to the Department's Application.
5) Security Testing will be done by STQC or any other CERT-IN empanelled agencies.
6) Sign-off by all the stakeholders.

6. District e-Governance Society (DeGS)

6.1 Formation of DeGS

Government vide G.O.(Ms)No.2, IT (e-Gov.II) Department dated 6.1.2012 has ordered for formation of District e-Governance Society as stipulated below:

''A District e-Governance Society (DeGS, headed by the Collector/District Magistrate shall be established in each district by the district administration and registered under the Societies Act. The DeGS will be responsible for the implementation of the project at the district level. District level officials of all service delivery departments could be the members of the society. The District Informatics Officer (DIO), NYC will be the Member-Secretary of the Society. The DeGS will also play a key role in the post implementation operation and maintenance phase of the Scheme."

Accordingly, all the Districts in Tamil Nadu have formed DeGS with the District Collector as the Chairman of the Society. Chennai being an urban district, majority of the Government services are offered by the Corporation of Chennai. Hence, the Commissioner, Corporation of Chennai has been made as the Chairman, and the Collector of Chennai has been nominated as Vice-Chairman of the District e-Governance Society.

6.2 Seed Money Assistance

On formation of District e-Governance Society in each District, an initial seed-money assistance of Rs.10.00 Lakhs has been provided to each District for the smooth establishment and functioning of the society by the Government.

6.3 Operation of DeGS

The DeGS will provide overall guidance to the project partners at district level. They will work closely with the system integrator and application developer to undertake the field work, comprehend the requirements, document the observations, prepare roadmap and re-design the processes.

The DeGS shall implement the project and ensure close linkages and coordination amongst the various stakeholders in the project at field level, provide commitment and support to bring-in the process changes.

The DeGS shall be involved in building the capacity of the staff at various levels of the District Administration. DeGS would also work closely with the technical solution provider for developing and customizing the software and implementing the technical solution.

The DeGS shall support the Common Services Centers (CSCs), throughout the District for providing G2C services as per the Service Level Agreements among Departments, State Designated Agency (SDA) and the Service Center Agency (SCA) for CSCs. It would identify and recommend the citizen services that can be provided through CSCs in consultation and co-ordination with the concerned departments. DeGS will prioritize the identified services and assist SCA in roll out of G2C services through CSCs.

The DeGS shall take up all publicity measures and campaigning through media like TV, radio, newspaper, conferences, seminars, public meetings, banners and posters, etc., for creating

awareness about the transformation through e-Governance and the benefits of e-District to the rural/urban population.

The State Government has initiated e-Governance awareness campaigns to change the present scenario of “People are approaching the Government”, to a situation where “Government reaches the People”.

The DeGS shall collect User Charges as fixed by the State Government and keep Audited Accounts of the same (ref. GO Ms No.2, IT Dept., dated 06.01.2012). Also, DeGS is responsible for signing MoU with SCAs/ELCOT/RCS/TACTV etc., for revenue sharing of Transaction Charges collected at the CSCs/UCSCs.

The DeGS ensures the delivery of identified services in the long term and also ensures addition of new services when the demand for e-services increases.

The DeGS shall also explore revenue streams for the sustenance of the District e-Governance Society and assist TNeGA and CSCs/ facility centers/ departmental access points in formulating policies accordingly.

The DeGS shall conduct fortnightly meetings and assess/review the e-District project, identify bottlenecks and take corrective measures, look into complaints and grievances.

The e-District application provides user access to DeGS for monitoring and control.

The DeGS shall also be responsible for the Change Management and Training Plan during the project implementation at the District level.

6.4 Sustenance of DeGS:

The initial seed money of Rs 10.0 Lakhs has been provided to the DeGS for the smooth establishment and functioning of the society by way of contribution from Government. The DeGS can use the Interest component of the seed money assistance. Apart from this eDistrict Project has a revenue stream, a minimum amount is fixed and collected as service charge from the Citizens for the services offered, in which a portion of the revenue is shared between DeGS and Service Delivery outlets. DeGS can effectively use of the revenue generated from the project for its sustenance.

A Detailed Guidelines on the functioning of DeGS is available *separately* in the DeGS Manual.

7. Digital Signature Certificate (DSC)

7.1 Importance of DSC

A Digital Signature Certificate authenticates your identity electronically. It also provides you with a high level of security for your online transactions by ensuring absolute privacy of the information exchanged using a Digital Signature Certificate. You can use certificates to encrypt information such that only the intended recipient can read it. You can digitally sign information to assure the recipient that it has not been changed in transit, and also verify your identity as the sender of the message.

7.1.1 Where can I purchase a Digital Signature Certificate?

Legally valid Digital Signature Certificates are issued only through a Controller of Certifying Authorities (CCA), Govt. of India, licensed Certifying Authorities (CA), such as eMudhra, Safescrypt, IDRBT and (n) Code solution.

7.1.2 How does a Digital Signature Certificate work?

A Digital Signature Certificate explicitly associates the identity of an individual/device with a pair of electronic keys - public and private keys - and this association is endorsed by the CA. The certificate contains information about a user's identity (for example, their name, pin code, country, email address, the date the certificate was issued and the name of the Certifying Authority that issued it).

These keys complement each other in that one does not function in the absence of the other. They are used by browsers and servers to encrypt and decrypt information regarding the identity of the certificate user during information exchange processes. The private key is stored on the user's computer hard disk or on an external device such as a token. The user retains control of the private key; it can only be used with the issued password.

The public key is disseminated with the encrypted information. The authentication process fails if either one of these keys in not available or do not match. This means that the encrypted data cannot be decrypted and therefore, is inaccessible to unauthorized parties.

7.1.3 Is Digital Signatures Certificate legally valid in India?

Yes, subsequent to the enactment of Information Technology Act 2000 in India, Digital Signature Certificates are legally valid in India.

Digital Signature Certificates are issued by licensed Certifying Authorities under the Ministry of Information Technology, Government of India as per the Information Technology Act.

7.1.4 Classes of Certificates

- Class 1 Certificate – Individual need to send the DSC forms through mail & apply for the certificates
- Class 2 Certificate – Organization has to send the form to the Agency & apply for the certificates (Bulk).
- Class 3 Certificate – Individual have to come directly & apply for the certificate

7.1.5 Benefit of Digital Signature Certificate classes?

- Uniquely authenticates User.
- Legal Recognition of transactions signed using Digital certificates (IT Act 2000)
- Security based on encryption (Cryptography)

7.2 Application Process

We are working on the class 2 certificate process & below flow diagram is involved to apply for the certificates.

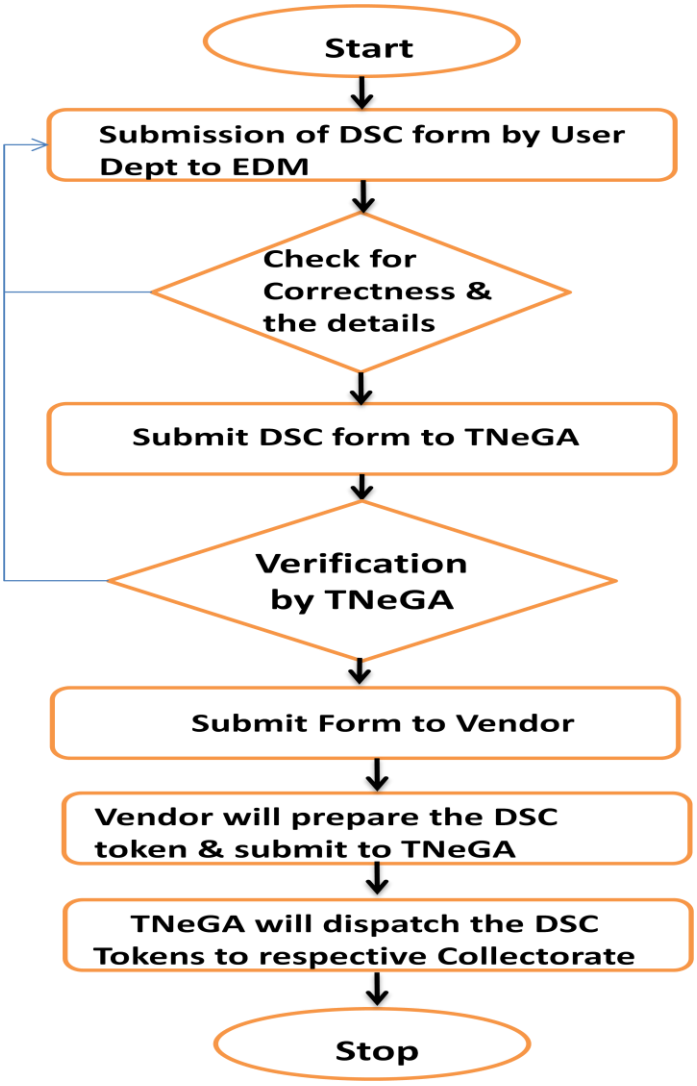


Figure: 3 DSC Process

7.3 Operational Manuals

7.4.1 Client Side Requirements for Digital Signature - System Requirements

S.No	System Requirements	Supporting Versions
1	Operating System	Minimum Windows 7 Professional 32-bit OS.
2	Java	•jdk-7u51-windows-i586.exe
3	Bouncy castle Library	•bcprov-jdk16-145.jar •bcmail-jdk16-145.jar
4	e-Token/USB Token/SmartCard	Moserbaer, Gemalto & Trustkey
5	Web Browser	Firefox version 28 + , Google Chrome version 30.0 + and IE 9+.

7.3.1 Installation of JAVA

Step 1: Download OracleJDK7

Download the Java Development Kit of the latest release in the Java 7 series i.e download Java SE Development Kit 7u51 from the Oracle.

Step 2: Unzip / Extract the compressed file

jdk-7u51-windows-i586.exe

Then, jdk1.7.0_51 and jre7 folder will be created.

In windows, The Java Runtime Environment (jre7) is enough to set the client side configuration (i.e User should not to use jdk1.7.0_51 for configurations).

Bouncy Castle Provider

Add the two Bouncy Castle libraries under the Java extension folder (%JAVAHOME%\lib\ext) which is given below.

e.g., c:\Program Files\Java\jre7\lib\ext\

- bcprov-jdk16-145.jar
- bcmail-jdk16-145.jar

Add the Policy Permissions in Java

The user should have administrator privilege to edit the below files.

Edit the %JAVA_HOME%\lib\security\java.policy file, (e.g., **c:\Program Files\Java\jre7\lib\security/java.policy)** and add the below statements.

```
        // Standard extensions get all permissions by default
grant codeBase {
 Permission java.security.AllPermission;
};

        //added by OTC-DSC Team
grant {
Permission java.security.AllPermission;
};
    // default permissions granted to all domains
```

Add the Bouncy castle Provider in Java

Edit **c:\Program Files\Java\jre7\lib\java.security** file and add the given below highlighted statements with this below preexisting lines.

For OracleJDK7,

```
security.provider.1=sun.security.provider.Sun
security.provider.2=sun.security.rsa.SunRsaSign
```

security.provider.3=sun.security.ec.SunEC

security.provider.4=com.sun.net.ssl.internal.ssl.Provider

security.provider.5=com.sun.crypto.provider.SunJCE

security.provider.6=sun.security.jgss.SunProvider

security.provider.7=com.sun.security.sasl.Provider

security.provider.8=org.jcp.xml.dsig.internal.dom.XMLDSigRI

security.provider.9=sun.security.smartcardio.SunPCSC

//Added by OTC-DSC Team

security.provider.10=org.bouncycastle.jce.provider.BouncyCastleProvider

Important Note:

After completion of all configuration settings,

- Restart the client machine
- Clear the history of the browser and restart the browser

7.3.2 Setup Java plug-in in Web Browsers (Client Side browser setting)

Mozilla Firefox

- Check whether the Java Plug-in is enabled in the Firefox browser by typing about:plugins (or) Add-ons → Plugins
- The Enabled Java Plug-in and ensure that Installed JDK / JRE version should be same in both system and web browser.

Google Chrome

In Google Chrome, It will automatically enable the Java plug-in.

Internet Explorer

In IE, It also automatically enables the Java plug-in. Also check

Internet Options → Security → Medium-high → Default level

7.3.3 Installation of e-Token/ USB Token and SmartCard Driver

The users should follow the driver installation documents to install the e-Token / USB Token and SmartCard of the respective device provided by third party provider.

Library for e-Tokens

S.No	e-Token	Crypto library file	Remarks
1	StaryKey400	C:\Windows\System32\aetpkss.dll	
2	Moserbaer	C:\Windows\system32\aetpkss.dll	
3	Gemalto	C:\Windows\System32\gtop11dotnet.dll	DotNet Framework 4.0 or above is required.
4.	Trustkey	C:\Windows\System32\ TRUSTKEYP11_ND_v34.dll	

7.4 CSC/UCSC

7.4.1 Introduction

The CSC Scheme is envisaged to be a model for delivery of content, services, information and knowledge, that allows public and private enterprises through a collaborative framework - to integrate their goals of profit as well as social objectives, into a sustainable business model for achieving rapid socio-economic change in rural India.

But beyond being a delivery channel, the CSC can play a role of an effective “change agent” that would provide a structured platform for socially inclusive community participation for collective developmental activities. Such change, it is proposed, would be undertaken through three important components:

i A Public Private Partnership (PPP) Framework or Government Agencies , undertaking

ii Rural Entrepreneurship and Market Mechanisms;

iii Government policy and support.

An ICT enabled CSC shall:

I Provide citizen centric services of the State and Central Government in a convenient and efficient manner through the CSCs across rural/urban areas.;

II Enhance the accountability, transparency and responsiveness of the Government to citizen's need

III Provide efficient and cost effective methods of service delivery to departments and agencies;

IV Allow private/Government agencies and social sector to collaborate with the Government to offer services in urban/rural India;

V Train village level entrepreneurs in business and IT management skills;

VI Empower the rural citizen through information dissemination and market linkages ensuring a greater level of participation.

As on 13th Jan 2015, there are around 2500 CSC have been established in rural/Urban areas of Tamil Nadu. Apart from this Government is planning to establish 1 CSC in each Panchayat village.

7.4.2 Types of Centres

1. **PACCS (Primary Agricultural Credit Cooperative Societies):**

The PACCS are available at rural areas across the State and semi urban areas. These centres are already provided with computer, printer, manpower and connectivity to distribute the loans to farmers. In this setup the RCS enhanced the facility to

accommodate one counter for delivery of online services of Government Departments. The RCS under the control of Co-operation department operates like a Service Centre Agency for running Rural CSCs. In this setup eDistrict Portal access is provided to PACCS by TNeGA and all the other IT and non IT infrastructure and man power by PACCS.



Figure: 4 PACCS Center

2. **VPRCs (Village Poverty Reduction Committee):**

In this set-up, the space, infrastructure, connectivity and the manpower to manage these centres are being provided by VPRCs. These are run from the premises of Panchayat Offices / other premises at a village and the existing infrastructure at the VPRCs are being used for service delivery (the infrastructure is being provided as part of Pudhu Vazhvu Project under Rural development department) and the existing manpower is used.

3. Facilitation Counters:

The CSCs are established to cater to the needs of the rural population. In order to extend the services to the Urban/Semi Urban population Government has decided to establish facilitation counters at various Government locations.

1. DFC- Facilitation counters established at Collectorate
2. TFC- Facilitation counters established at Taluk Offices.
3. RI FC- Facilitation counters established at RI Quarters.
4. Block FC- Facilitation counters established at Block offices.



Figure: 5 Taluk Facilitation centre

4. Urban CSCs (UCSCs) by ELCOT:

In this set-up, the space is being provided by Corporation of Chennai (CoC) / CMWSSB / Urban Local Bodies / Rural Local Bodies/Collectorate. The infrastructure and man power for these centers is being provided by ELCOT through vendors/Facility Managers. A

revenue sharing agreement has been signed by the facility manager with ELCOT. The collection/payment/reconciliation and MIS has been carried out by the banker selected through an open tender process. For more Details on CSC run by ELCOT please refer Annexure 6.



Figure: 6 UCSC centre at Mylapore taluk

5. CSCs by TACTV:

In this set-up, the space is being provided by the individual departments depending on the scope of establishing the CSCs by TACTV in the Government Premises. The infrastructure for these centers is being provided by TACTV and the manpower will be provided by TACTV through a Facility Manager. The collection/payment/reconciliation and MIS will be done by a banker who will be selected through an open tender process.

7.4.3 Guidelines or Steps for Setting up new CSC/UCSC

a. Get approval from Government (IT Department/TNeGA) to set-up CSCs under Rural/Urban CSC schemes

b. Prepare the site as per the design approved by Government (See the annexure 5)

c. Provide Computer with dual monitor, Scanner, Printer, UPS, Biometric devices, Webcam and Consumables.

d. Ensure AMC for the H/W and network equipments

e. Deploy Non IT infrastructure like Chair, table, cash box, water, fan, writing board etc.,

f. Establish network connectivity with internet facility (minimum 1MBPS bandwidth for 2 counters centre)

g. Sign MoU with DeGS and Line Departments for utilizing their services and revenue sharing

h. Deploy man power to operate the counters

i. Create user ids in the CSC portal through TNeGA

j. Send request to TNeGA for training of the operators and revenue officials.

k. Provide hands-on training before launch of CSCs

l. Get preprinted stationary from ELCOT/TACTV/RCS etc., for receipt printing

m. Get the uniform name board as prescribed by Government for CSC

n. Keep service list and service charges apart from charges to Government

o. Install Token vending machines if there is a large crowd anticipated

p. Prescribe office working hours based on Citizen Convenience. (9:30 AM to 3:30 PM) excluding payment collection and financial accounting.

q. Keep track of collections at the counters

7.5 Bill of Material (BoM)

7.5.1 CSC (Rural/urban) BoM per counter

S.No	Component	Quantity
1	Desktop (with twin monitor and pre loaded software including security software)	1
2	Multifunctional Device (MFD)	1
3	Dot Matrix Printer	1
4	1 KVA UPS with 4 Hours Back-up	1
5	Modem/Switches	1
6	Counter table	1
7	Counter chair	2
8	Waiting chair (1 row)	1
9	Information Board	1
10	Web Camera	1
11	Biometric devices (FPS&IS)	2

7.5.2 Asset Specification - tentative

Asset Type	Details	Indicative Specifications
Computer Terminals	**Processor**	▪ Intel Pentium IV, 3.0 GHz, 800 MHz FSB HT Processor, 2 MB Cache, 800Mhz FSB Dual Core Processor or higher OR AMD Athlon 64 3000+ or higher
	Motherboard	Intel Original Motherboard, /945/945G/13 series OR Equivalent or Higher
	Memory	▪ 1 GB DDR 2 SDRAM or Higher
	Hard Drive	▪ 160 GB, SATA/IDE, 7200 RPM or Higher
	Optical Drive	▪ 52X CD RW /DVD R Combo Drive

Asset Type	Details	Indicative Specifications
	FDD	▪ 1.44 FDD
	Speakers	▪ Set of Speakers
	Graphics Card	▪ Onboard Intel GMA900 Graphics, Integrated ▪ OR Equivalent
	Audio / Sound	▪ Onboard Intel High Definition Audio system ▪ OR Equivalent
	LAN	▪ Onboard integrated 10/100 Mbps LAN
	Fax/Modem	▪ 56.6 Kbps Internal card
	I/O Ports	▪ 6 USB (2.0 version), 2 PS/2 ports, 1 Serial, 1 Parallel, 1 VGA Port, 1 RJ45 LAN Port, Audio Port
	Keyboard / Mouse	▪ USB or PS2 or serial , 107 Keys Keyboard wired / wireless ▪ USB, PS2, Optical 2 button scroll Mouse - wired / wireless
	Monitor	▪ 15” Color Monitor
	Operating System	▪ The equivalent of or an OS which delivers functional performances of Microsoft Windows XP Professional / Linux and above
	Warranty	▪ 3 years warranty
Printer	Dot Matrix Printers	▪ 9 pin head ▪ Pint Speed 300 cps ▪ Print Direction Bi-directional Logic Seeking ▪ 80 / 132 Column Printer ▪ Power supply fluctuation 90-270V
Camera	Digital Camera	3.0 Megapixel or above with CCD Sensor. Integrated Flash Internal as well as Expandable External Storage Minimum 3X Digital Zoom

Asset Type	Details	Indicative Specifications
Biometric Device	Finger print scanner	Sensor Type --- CMOS Sensing Optical Resolution --- 500 dpi + 0.2% Interface --- USB 1.1 and 2.0 Supported OS --- Windows 2003 / XP / 2000 / Linux Fingerprint Storage capacity --- More than 500 templates. Other features --- Facility to store and match the fingerprint on the device --- Latent print image removal --- Encryption of fingerprint templates.
Optional Additional Printer	MFD InkJet Based (Colour/ B&W)	Inkjet (B&W/Colour) ▪ Print, ▪ Upto 16 ppm in Black. (1200x1200dpi) ▪ 12 ppm in Color. ▪ (4800x1200dpi optimized) ▪ External I/O Port 1 USB Port ▪ Supports MS Windows or Linux O/s
Video input	Web Camera	▪ Intelligent Face Tracking ▪ VGA Sensor for low light video capture ▪ Built in microphone ▪ Low distortion, wide field of view lens ▪ 1.3 MP Resolution still photo capability ▪ USB2.0 high speed connectivity
Consumer Premise Equipment	**Networking**	▪ ADSL Router with WAN modes supported: Connects to host through 10/100Base-TX Ethernet Port OR (For Dial Ups) ▪ Fax/Voice/Data Modem supporting 56 Kbps with ITU-T V.92 Standards

Asset Type	Details	Indicative Specifications
Power Backup	• UPS • Battery • Generator • Alternate Sources including non-renewable energy sources	Configuration Customized depending on CSC's power requirement.
IT Software	Office Utility Software	▪ The equivalent of or an OS which delivers functional performances of Microsoft Office / Open Office or equivalent
	IS Security	▪ Anti Virus Client

8. Roles & Responsibilities

8.1 State Apex Committee & SEG

The State Apex Committee is headed by the Chief Secretary and as Principal Secretaries / Secretaries of the State Mission Mode Departments as members. The State Apex Committee will oversee and provide policy direction to ensure inter-ministerial coordination and has the power to issue direction to any Department.

State eGovernance Group (SeG):

The SeG is headed by Principal Secretary / Secretary to Government, Information Technology department and would involve in Program Management of the projects and would lead the role of providing advice to the State Government regarding utilization of technology to achieve eGovernance initiatives.

8.2 Collectors

1. District Collector (DC) would have the overall responsibility for administering and delivery of selected services under the e-District Project.
2. The DC shall regularly monitor activities of the subordinates through the login provided to them in the eDistrict Application.
3. DC should take appropriate action against escalation triggered against any service under e-District.
4. DC should review their district MIS [Management Information System] reports generated periodically at least once in a week for various services under e-District Project and take appropriate action.
5. DC should protect his user name and password and should not allow any unauthorized usages. If the account is compromised the DC should contact the concerned authority immediately.
6. DC should check the original case file and supporting documents before approving or rejecting any service request if he/she so desires.

7. DC would be responsible for taking appropriate action on the grievance filed and undertake all necessary steps for redressal of the grievance satisfactorily
8. DC as the Chairperson of DeGS [District eGovernance Society] is responsible to take action against the vendor if the IT infrastructure (Procured from DeGS fund)- Computers, printers, scanners, etc is not in a good working condition or Service Level Agreement [SLA] defined in contract is not met.
9. DC should preferably call monthly review meetings of members in DeGS to discuss the issues, implementation and pendency for various services.

8.3 eDistrict Coordinators (EDC/AEDC)

The eDistrict Coordinators (in the rank of Sub collectors/RDOs) should be appointed by the respective District Collectors will act as a bridge between District administration and Tamil Nadu eGovernance Agency. AEDC will assist the existing EDC.

1. The eDistrict co-ordinator should identify the delivery points like PACCS, VPRC, Facilitation Centres, or any other Government locations to establish the CSC to provide eDistrict Services.
2. The Coordinators should collate the DSC application of the respective Tahsildhars/ Deputy Tahsildhars / RDO's and send to TNeGA to get the DSC before launch.
3. They should monitor the delivery points established to provide the services periodically through MIS and inform the District administration if anything goes wrong.
4. The Coordinators should create the userid and password of the district revenue officials (like VAO, RI, DT, THL, and RDO) and map them accordingly to their respective village.
5. The Coordinators should provide any reports or information related to eDistrict application to TNeGA whenever necessary because they are the focal points in the District.

8.4 E-Districts Manager

As part of e-District rollout the GoI made provision to have one e-District manager per District who would be selected through a transparent process. They will get a fellowship for three years and a certificate after completion of their contact period. They are the bridge between the District administration and the SDA (TNeGA) while e-District rollout across the State. They

1) Co-ordinate with e-District coordinators, System Integrator, SDA and the District collector.
2) Send report to all the stakeholders the project progress
3) Monitor the project at the Districts
4) Help the District Administration to manage the e-District H/W , S/W assets related to e-District and SSDG, CSC etc.,
5) Help DeGS in all aspects of e-District rollout.

8.5 NIC (National Informatics Centre)

1. To maintain the DLU login.(District Level user Admin)
2. To extend the technical support in installing and managing DSC tokens and trouble shoot the same.
3. To extend support for software updation that is essential for smooth running of eDistrict application.
4. To report technical issues to TNeGA faced at District/ Taluk levels in the eDistrict.
5. For Contact Details Please Refer Annexure 6.

8.6 ELCOT (Electronic Corporation of Tamil Nadu Limited)

1. To ensure 24x7 availability of TNSWAN services.
2. To ensure that broadband connection provided through ELCOT are on board in time.
3. To ensure that hardware supplied through ELCOT reaches the location in time.
4. To ensure that Service related issues relating to hardware/TNSWAN are attended to in time if the same is procured through ELCOT.

5. To organize training to officials / Service, Outlet operators under intimation to TNeGA. Ensure that the proposed UCSC to be established by ELCOT in Districts are provided with necessary infrastructure.
6. Technical Man Power to manage the centres.
7. To coordinate with SDC for Hardware related issues that are procured and placed at SDC.
8. For Contact Details please refer Annexure 6

8.7 TNeGA (Tamil Nadu eGovernance Agency)

1. Supervise and monitor overall activities relating to eDistrict implementation.
2. Escalate the issues to appropriate Stakeholders immediately.
3. Conduct periodical review meetings with stakeholders and update the status report to Government.
4. To liase with Departments/ District Administrations concerned in implementing the Project successfully.
5. Organize for imparting training to officials/ Service outlet operators if required
6. For Contact Details Please refer Annexure 6.

8.8 CDAC (Centre for Development of Advanced Computing)

1. Whenever the value addition and patches are released the same must be informed to the Stakeholders and CDAC immediately.
2. In case of issues in the SSDG stack and connector interface, CDAC support team shall render technical assistance via web/telephonic/remote/onsite support to the Stakeholders including Implementing Agency and Application service provider.
3. In case of tuning requirement to the database or JBoss, CDAC shall provide necessary configuration steps and support immediately.
4. CDAC shall provide necessary network and other support required to ensure the staging environment from CDAC's test bed at Bangalore.

8.9 STQC (Standardization Testing and Quality Certification)

Standardization Testing and Quality Certification (STQC) Directorate is an attached office of the Department of Electronics and Information Technology (DeitY), Government of India. It provides quality assurance services in the area of Electronics and IT through countrywide network of laboratories and centres. The services include Testing**,** Calibration**,** IT & e-Governance**,** Training and Certification to public and private organizations. If the department needs to integrate their eservices through the eDistrict portal in SDC all the services of the departments should be tested and certified by STQC. It is mandatory to host their services in the state data centre.

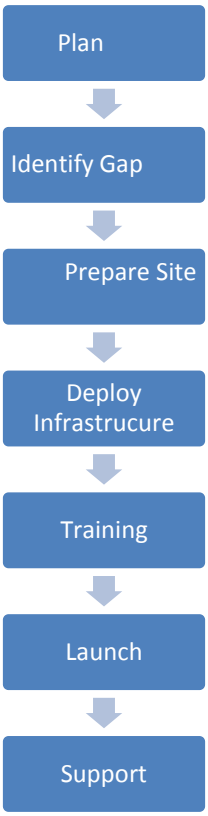
8.10 IA (Implementing Agency)

TNeGA being the SDA will implement the eDistrict project with the help of the stakeholders.

8.11 Helpdesk and Support

Please refer Annexure 7

9. E-District Implementation Steps



9.1 Plan Implementation with the Stakeholders

The System Integrator (SI) should plan with the different stakeholders the following

1) Procurement plan
2) Resource plan
3) Deployment Plan
4) Training Plan
5) Communication plan
6) O&M Support Plan etc.,

9.2 Identify the Gap in IT and Non IT Infrastructure

The SI should visit the office locations across the State to identify the IT & Non IT Infrastructures like Computer, Scanner, UPS, Printer, Network I/O points, LAN Cabling, Electric Plug Points, Earthing, TNSWAN or other network availability, network switch, routers, Chairs, computer tables etc., at the locations and offices identified by TNeGA. The Infrastructure will be provided to the officers in the work flow process of e-Services. SI should visit and find out the Infrastructure availability and if already there is an item then they will not be taken into account for IT and Non IT Infrastructure for that office and location. The SI should prepare a report before deployment of H/W and network equipments.

9.3 Prepare the Site at the locations identified

Site preparation includes the following

1) Clean the location
2) Establish the LAN/WAN
3) Earthing
4) Electrical working

9.4 Deployment of IT and non IT Infrastructure

TNeGA has already floated tender for e-District System Integrator who will be responsible for rollout of e-District. The Hardware will be deployed by ELCOT as per the requirement of resources in the workflow of e-Services. ELCOT will provide the following items:

S. No	Component
1.	Desktop with pre-loaded Operating System and anti-virus software with patches & Warranty for the entire project period
2.	OS & Anti Virus Licenses
3.	Networking equipments for connectivity
4.	UPS 1 KVA
5.	Crypto-token for Digital Signature Certificate (DSC)
6.	Annual recurring charges for Digital Signature Certificate (DSC) for 3 year validity

The minimum specification for the desk top would be

Sl. No.	Features	Specifications
1	**Make**	Must be specified
2	**Model**	Tower Model Required. Must be specified. All the relevant product brochures and manuals must be submitted.
3	**Processor**	Intel Core i3 or AMD Athlon; min 2.7 GHz
4	**Motherboard**	OEM Motherboard
5	**Chipset**	Latest Generation compatible chipset to the supplied CPU
6	**RAM**	Memory2GB (1x2GB) expandable to 8GB Non-ECC DDR3 1333MHz SDRAM Memory, minimum Two DIMM slots
7	**Hard Disk Drive & controller**	HDD320 GB 7200 RPM 3.5" SATA Hard Drive
8	**Optical Drive**	Optical Drive16X Max DVD+/ RW
9	**Graphics**	Integrated Graphics
10	**Audio**	High Definition Audio Card
11	**Ethernet**	NIC 10/100/1000
12	**Slots**	4 PCI / PCI Express slots, VGA (1), USB 2.0 (8)
13	**Ports**	Rear I/O: (6) USB 2.0 ports, (1) serial port, (1) RJ-45, (1) VGA, (1) line out, (1) mic in, Front I/O: (2) USB 2.0 ports
14	**Power Supply**	250-watt ATX Power Supply – PFC (Active Power Factor Correction (PFC) power supply). Surge protected
15	**Keyboard**	USB 104 keys keyboard (Same make as PC) with bi-lingual keys (English and local language of the State) compliant to enhanced In script Keyboard based on Unicode version 6.0 or later
16	**Monitor**	18.5" LED Monitor , Maximum resolution - 1366 x 768; Response time (typical)- 5ms ; TCO 5 certification for Monitor;

Sl. No.	Features	Specifications
17	**Mouse**	USB 2 Button Optical Scroll Mouse(Same make as PC)
18	**Operating System**	A proprietary Operating System Preloaded that is equivalent to Genuine Windows(R) 7 Professional SP1 (English) or above with updates / patches over the period of 5 years
19	**Compliance And Certification**	As per industry standard for PC and energy star for Monitor
20	**Drivers for different Operating systems**	Drivers should be freely available on OEM's web site and should be supplied in media along with PC

9.5 Training of officials/CSC operators

The District eDistrict Co-ordinator should collate the list of participants for the eDistrict Training program for Officials as well as CSC operators before the launch and they should send the List of participants, suitable date for the training from District Administration. The TNeGA/SeMT officials will get the nomination from the Districts for the eDistrict Training for Officials and CSC operators and amicable Date will be fixed for the training program. The eDistrict co-ordinator should arrange all the logistics required for the training program like training hall, Projectors, Laptops for the trainees with the help of ELCOT Business manager and NIC.

9.6 Preparation for Launch (DSC installation, Mapping, User Creations)

The eDistrict Launch includes various tasks like DSC installation, User id creations for the Revenue officials and mapping them to the particular Zone or village or Firka or Taluks.

The DSC for the respective Tahsildhars, Deputy Tahsildhars, and RDO’s of the particular taluk where the eDistrict application is going to be launched should be procured from TNeGA by applying properly before the launch. The DSC obtained should be installed with the help of NIC DIO in their respective systems.

The District Admin login will be provided to the NIC and eDistrict co-ordinator. The User ID creation and mapping the user to particular Zone or village or Firka or Taluks is responsibility of the co-ordinator. The NIC should get the Revenue Database from the District administration and should send it to the NIC Chennai to upload in the server. The Firka, zone, Village, Taluk mapping should be carried out by NIC. Once everything is ready they can fix a date for the Launch by informing District Administration. The TNeGA/SeMT nodal person of the particular district will co-ordinate with NIC, ELCOT, eDistrict Co-ordinator and help to launch the services in the District.

9.7 Post Launch (Helpdesk & Reports)

The TNeGA/SeMT after the launch will provide a training to pull the MIS reports through the Administrator login. There are various reports the District administration could pull from the application like CSC performance report, Department Performance report, period performance report, Drill down report, Community wise report, Counter wise report etc.

The helpdesk is setup by the vendor in Chennai to solve all issues related to applications. It is working on from Mon to Sat (10:00 AM to 6:00 PM). The call centre number is 044-32212891/92

10. Fund Management

10.1 DeGS Fund

The DeGS should utilize the seed money assistance as per the guideline provided by GoI. There should be accounts for all the spending and it will be audited by the concerned authorities periodically. The DeGS should submit monthly report on DeGS accounts as per the template provided by TNeGA. The same procedure followed for the revenue shared by the agencies running CSCs in the respective Districts (like ELCOT, Co-operation, TACTV etc.,)

10.2 Service Fees

As per the minutes of the Apex committee chaired by the Chief Secretary, Government of Tamil Nadu, there is a cap fixed on charges for Revenue, Social Welfare and Utility Services

Services	Maximum Service Charge
Revenue Services	Rs. 50
Social Welfare	Rs. 100
Utility Services	Rs. 10 for bill value between Rs. 0 and Rs. 1000; Rs. 20 for bill value between Rs.1001 and Rs. 3000 Rs. 30 for bill value > Rs. 3000

Whenever a new service added, the charges will be fixed temporarily by the Department and TNeGA/DeGS and the same will be placed before the Apex committee for rationalization.

10.3 Revenue Sharing Model

The services delivered through the CSCs, UCSCs are chargeable based on the transaction charge as approved by the apex committee. The Agencies those who are implementing and operating CSCs shall share a portion of the revenue collected from general public as transaction/service charges.

SCA category	Revenue share in Rs.
DFC, Facilitation counters (RI Quarters, etc)	Full amount to DeGS
Others (ELCOT, TACTV, RCS, VPRC,PACCS etc.,)	At present Determining the revenue sharing pattern is vested with District Collectors.

However the revenue sharing pattern proposal is sent to the Government for uniform collection of Service fees and Sharing. Once the Government approves, it will be communicated to all the Districts.

11. Key Challenges in the e-District Project

- ✓ Integrating the services with the common e-Services portal
- ✓ Providing DSC tokens as NICA stopped their services
- ✓ ICT skill gap in all levels of Government organization
- ✓ Project management
- ✓ Stakeholder co-operation
- ✓ Selection of System Integrator
- ✓ Network connectivity (availability)
- ✓ Enhancing the application in the user perspective
- ✓ Training
- ✓ Establishment of CSCs

12. User Manuals

12.1 CSC operators (Revenue)

Please refer Annexure 1

12.2 Revenue Officials (VAO's, RI's, DT's, T's, RDO's)

Please refer Annexure 2

12.3 CSC Operators (Social Welfare)

Please refer Annexure 3

12.4 Social Welfare Officials (BDO's, BDO Assistants, DSWO's, DSWO's Assistants, Accountant)

Please refer Annexure 4

12.5 CSC/UCSC Site Design

Please refer Annexure 5

13. Contact Persons Details (NIC, ELCOT, TNeGA)

Please refer Annexure 6.

13.1 Helpdesk and Support

Please refer Annexure 7.

14. Checklist for setting up CSC

Please refer Annexure 8.

Annexure 1

Annexure 2

Annexure 3

Annexure 4

Annexure 5

Annexure 6

Annexure 7

Annexure 8