

Kerala State IT Mission

Annual Newsletter 2020





Kerala State Information Technology Mission

ICT Campus, Vellayambalam, Thiruvananthapuram-695033, Kerala, India

Tel: +91 471 231 8004, 231 8007, 2726881, 272 5646 & 2314307 Fax: +91 471 2314284

Web: www.itmission.kerala.gov.in

www.kerala.gov.in

ANNUAL NEWS LETTER 2020



MESSAGE

The Government of Kerala acknowledges the critical importance of Information Technology as an instrument for the State's overall development and remains deeply committed to its dissemination, both as a crucial engine of economic growth and as a tool for increasing productivity, speed & transparency in governance and improved quality of life for the common man. Kerala State IT Mission(KSITM) performs diverse roles including, e-governance and development of human resources, disseminating information across citizens and Government, interfacing between Government and industry, bridging digital divide, investointeractions and achieving speed and transparency in governance. The activity of thrust is e- governance ; conceptualization and implementation have been guided by citizen centricity and enhancing citizens' efficiency. Responsiveness ofthe governments to the trends of this digital revolution, its drive to enable this transformation in the governance will be critical in determining the citizen orientation of the government, its ability to spur the economic development of the society. Government of Kerala, in consonance with this, in its latest IT policy envisioned establishing knowledge powered Digital Kerala to enable Digital life style for all the citizens through application of digital technologies in the areas of Digital Citizenship within the governing principles of ubiquity, inclusion, freedom. The policy also lays out establishment of a citizen centric digital government to persistently improve service delivery standards and service quality through adoption of latest digital technologies.

S Chandrasekar IAS
Director-Kerala State IT Mission



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1. INTRODUCTION

We are in the cusp of a digital transformation in the governance due to adoption of latest digital technologies (cloud computing, social, mobile technologies, data analytics and Machine learning) enhancing Government's ability to serve the citizens manifold, to meet the ever increasing expectations of citizens. Globally this watershed transformation made the governments to re-think, re-design and deliver its services centered around the requirements of users through consultation as against the conventional way of designing services keeping the business requirements of individual department in perspective. Governments have worked to integrate the departmental silos in a common framework to cut down redundancy, improve efficiency and to establish data driven governance for effective scheme design and delivery. Responsiveness of the governments to the trends of this digital revolution, its drive to enable this transformation in the governance will be critical in determining the citizen orientation of the government, its ability to spur the economic development of the society. Government of Kerala, in consonance with this, in its latest IT policy envisioned establishing knowledge powered Digital Kerala to enable Digital lifestyle for all the citizens through application of digital technologies in the areas of Digital Citizenship within the governing principles of ubiquity, inclusion, freedom. The policy also lays out establishment of a citizen centric digital government to persistently improve service delivery standards and service quality through adoption of latest digital technologies.

The Government of Kerala acknowledges the critical importance of Information Technology as an instrument for the State's overall development and remains deeply committed to its dissemination, both as a crucial engine of economic growth and as a tool for increasing productivity, speed & transparency in governance and improved quality of life for the common man.

Kerala State Information Technology Mission (KSITM) is a Society registered under the Travancore Cochin Literary Scientific & Charitable Societies Registration Act (Act 12 of 1955). It is an autonomous nodal IT implementation agency for Department of Information Technology, Government of Kerala which provides managerial support to

various initiatives of the Department.

Kerala State IT Mission is a team of professionals from the industry and the Government and is headed by the Director, with the Secretary-IT as the Chairman. The Governing body of KSITM is chaired by the Hon'ble Minister for IT. The Principal Secretary - IT is the Chairman of the Executive Committee of KSITM. The Director KSITM is the Convenor of the meetings of the General Body and Executive Committee.

KSITM performs diverse roles including, e-governance and development of human resources, disseminating information across citizens and Government, interfacing between Government and industry, bridging digital divide, investor interactions and achieving speed and transparency in governance. The activity of thrust is e-governance; conceptualization and implementation have been guided by citizen centricity and enhancing citizens' efficiency.

KSITM's primary responsibilities are:

1. Interfacing between the Government and the industry
2. Interacting with potential investors
2. Strengthening the IT / ITES industry base
3. Holding promotional campaigns for hard selling the state.
4. ICT dissemination to bridge the digital divide
5. E- Governance
6. Developing Human Resources for IT & ITES
7. Advising the Government on policy matters

Kerala has emerged as first 'Digital State' in the Country, a feat realized through the visionary measures of the Government to open up the doors of digital literacy to its citizens to make God's own country the first 'e-literate' State, through launching the Akshaya Project way back in 2002.

The proactive policy of the State Government in allowing the telecom service providers to network the State through Optical Fibre Cable (OFC) has enabled its citizens to get online, both through broadband and mobile. Kerala had established its first State Data Centre (SDC) in 2005 to deliver e-governance services. This was further strengthened with the setup of second SDC in 2011, which is offering industry leading cloud infrastructure and enhancement to core connectivity infrastructure such as Kerala State Wide Area Network

(KSWAN), National Optical Fibre Network (NOFN) and National Knowledge Network (NKN).

The Digital Empowerment Campaign is a project formulated by Govt. of Kerala to empower the citizens to reap the benefits of various e-Governance initiatives to ensure digital inclusion, befitting the achievements made by the State. Digital empowerment campaign is targeted on awareness on digital literacy, e-Services and information security. Social Media platform is widely used in the Digital Empowerment campaign during Covid regime.

As a result of these proactive policies and projects, Kerala has achieved major progress in the transformational journey towards "Digital State". A few of the achievements include:

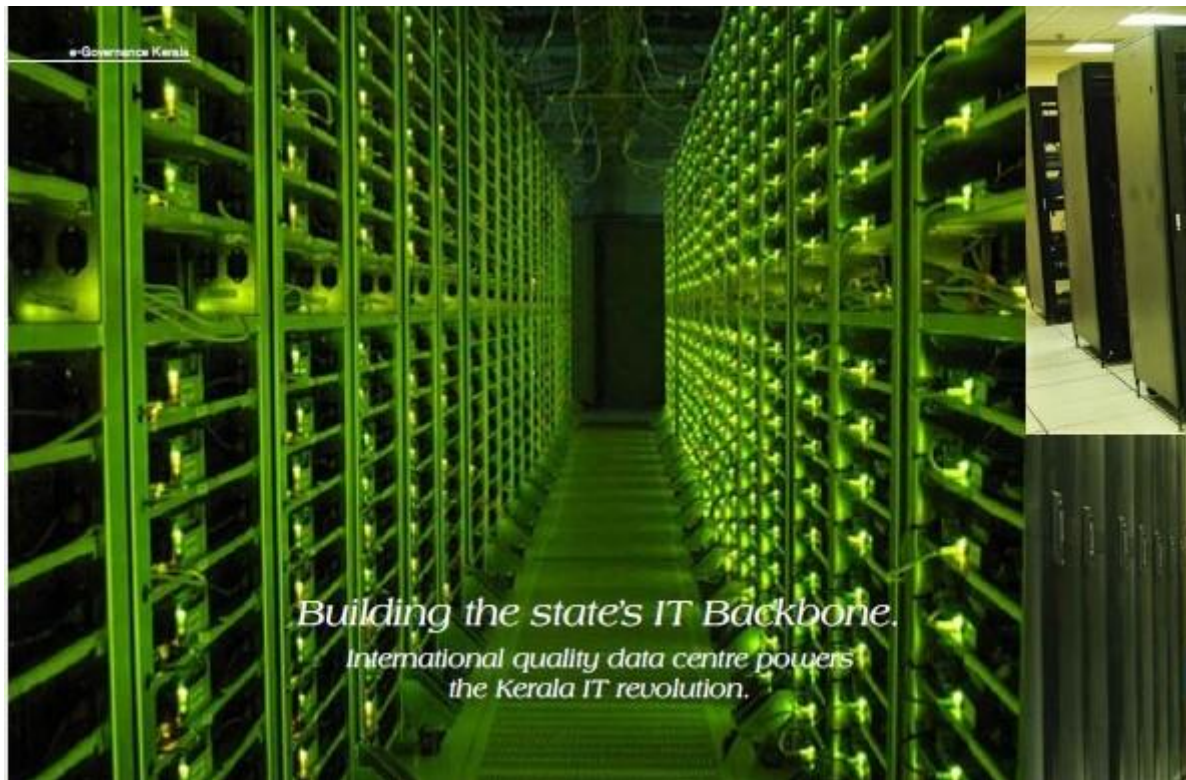
- **First Indian State** To Make Internet Access A Basic Right, A Model For The Country To Follow.
- **First online cabinet meeting in the history of kerala** was conducted during Covid pandemic period through KSITM Video Conferencing project.
- **Mapathon Keralam** is being coordinated by the Kerala State IT Mission, with the concept of Let Us Make Our Map. Through the Mapathon Keralam, the Government of Kerala aims to create extensive local maps of Kerala including physical infrastructure natural resources and other information that are useful for planning and other developments.
- **Digital Empowerment campaign** organized during Covid pandemic to digitally empower the citizens on egov services, cyber security, digital payments and receipts and online govt services through social media platforms.
- **KFi-2000, Kerala wifi**, free WiFi Hotspots in public places across the state with 1 GB free data.
- **Social Security Pension Mustering** has been successfully completed through AKSHAYA, benefited more than 80 lakh beneficiaries.
- Achieved Over 3.44 Cr Aadhaar enrolments & Adoption of Aadhaar based identification & DBT services
- **mKeralam**, a unified mobile app to access 100 plus government services.
- **Sate Portal**-A single window service access point for citizens of the state with 60 plus services.
- Shared Government Citizen Call Centre in operation for last one decade with software based CRM facility supports more than 60 departments.
- **FIRST** state in the country to issue over 5 Crore e-Certificates through editrict portal.
- Government of India Commissions India's **FIRST** Hi-Speed Rural Broadband Network (NOFN) in Idukki, Kerala. 100% of the Gram Panchayats are connected through optical fibre network
- Over 2750 Akshaya Centers(CSCs) in the state operational for the last one decade offering host of government services.
- Over 9000 ATMs across state enabling ease of access to Banking
- High tele-density of 124.14%, with a rapid increase in the usage of smart phones
- High internet penetration of 54.08 %

- Over 30,000 km OFC laid across the state, which is growing

The complex and changing technology landscape, growth in internet and smart mobile phones penetration in the State, together with the proactive measures of the Government to digitally empower the citizens had helped the State to make significant strides in turning Kerala a digital state.

With its continued focus on digital infrastructure and various ongoing digital initiatives, the Government's vision is to further bridge the digital divide towards a state with digitally empowered society.

2. CORE IT INFRASTRUCTURE



2.1 Kerala State Data Center

Government Cloud - one stop for all hosting requirements

The State Data Centre project was mandated by the Government of India to provide the core infrastructure for the e-Governance initiatives of the National e-Governance Plan (NeGP). The mission is to provide efficient electronic delivery of Government-to-Government (G2G), Government-to-citizen (G2C) and Government-to-business (G2B) services in each of the States and UTs by consolidating the services, applications and infrastructure on a single platform.

Kerala became the first State in the country to have a state-of-the-art Data Centre exclusively for e-Governance activities. It acts as a Central repository of the State. All the Government services are made interoperable and are rendered through this central platform seamlessly supported by core Connectivity Infrastructure such as Kerala State Wide Area Network (KSWAN) and Common Service Centers (CSC).

Aggregation of all IT Infrastructure resources and Management resources into a single platform thus ensures faster delivery of services at reduced costs.

In Kerala, there are two State Data Centers, both monitored and managed by Kerala State IT Mission. The first data centre, SDC-1 was established in 2005 and the second one SDC-2 in 2012.

Highlights:

- Implemented VMware cloud solution at State Data Centre
- Implementation and continuation of standards for ISO/IEC 27001:2013 and ISO/IEC 20000:2018 for both State Data Centres.
- Upgraded the Redhat Virtualization computing infrastructure by adding four high end servers.
- Purchased 4 SAN Switches with 16 Gbps port speed, thereby augmented the SAN infrastructure.
- Enhanced 100 TB capacity to the existing SAN storage.
- Implemented Enterprise Security solutions (DDoS Defense Pro, Web Application Firewalls, Endpoint Security Solutions) at both State Data Centres.
- Installed Application & Link Load balancers at SDC.
- Implemented DARPAN Network monitoring solution at State Data Centre.

The key services being offered by State Data Centers in Kerala are:

- Cloud Hosting: Cloud-enabled facilities to make available on demand infrastructure for hosting the application
- Improved infrastructure utilization with multiple Virtual machines (VMs)
- Secured and Reliable Data Storage established through pro-active monitoring of threats on 24 x 7 basis through Security Operations Centre (SOC)
- Co-Hosting: Shared hosting facility for web applications and websites
- Co-Location: Server space provided for Government department to place their procured servers inside the premise.
- 24*7 support for data and application availability through Integrated Command and Control Centre (ICCC)
- Disaster Recovery
- Remote Management and Service Integration

Locations

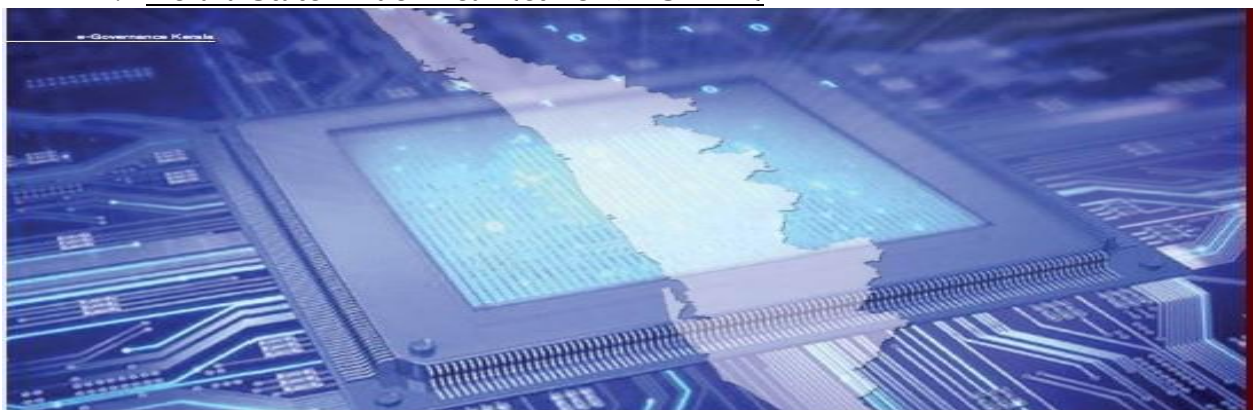
- State Data Centre-1,
Co-Bank Towers (Near Mascot Hotel), Thiruvananthapuram,
sdcl.ksitm@kerala.gov.in
Tel: 0471-2728618,2317618.
- State Data Centre-2,
GoK, Technopark, Thiruvananthapuram
sdcl.ksitm@kerala.gov.in / Tel: 0471-2700272/2700720

State Data Centre - 1 & 2

Infrastructure Summary

	SDC 1	SDC 2
Location	Co-Bank Towers, Palayam, Thiruvananthapuram	Thejaswini Buildings, Technopark, Thiruvananthapuram
Date of Commissioning	2005	2011
Total Space	5000 Sq.ft	4391 Sq.ft
Server Farm Area	1000 Sq.ft	1525 Sq.ft
Server Racks	37	52
Total No. of Servers	344	557
Total No. of Servers (Co-Located)	294	483
Total Storage Capacity	161 TB	388 TB
Total Internet bandwidth	3 Gbps	2 Gbps
Rated Power (in KW)	244.2 KW	463.74 KW
Diesel Generators	1 x 380 KVA	3 x 400 KVA
UPS	3 x 60 KVA, 1 x 90 KVA, 1 x 6 KVA	4 x 160 KVA, 2 x 20 KVA
Number of Applications (Co-Hosted)	167	332
Number of Applications (Co-located)	318	102
Cloud Infrastructure	VMware Cloud	RedHat Virtualization
Total No. of Virtualized Machines provisioned in Cloud	519	645
Service Levels in % (Past One year)	99.90 %	99.99%
Manpower deployed	24	25
24 x 7 Helpdesk Services	0471-2728618, 2317618, 2700720	

2.2 Kerala State Wide Area Network-KSWAN



→Connecting the Dots

The State Wide Area Network (SWAN) is a state-of-the-art framework that allows the provision of Wide Area Network (WAN) connectivity and associated services to the public sector in the State. This will improve Government efficiency. Kerala State Wide Area Network (KSWAN) was established in the year 2008 by Govt. of Kerala under the technical and financial assistance of Ministry of Electronics & Information Technology (MeiTY), Government of India which forms the digital back bone of the State Information Infrastructure (SII), connecting 14 District PoPs, 152 Block PoPs and 63 Mini POPs to the State Data Centers located at Thiruvananthapuram.

The KSWAN acts as backbone of the state communication network supporting e-governance initiatives of the state and is presently connected to around 4000 Government institutions under various Govt. departments through Wireless, Leased Line and LAN. KSWAN is seamlessly integrated with two State Data Centers (SDC-1 & SDC-2) which enable the network to provide large number of G2G, G2C services hosted in SDCs to the Govt. Institutions through a secure intranet. As the Govt. Departments are implementing e-office, KSWAN connectivity is mandatory in such offices. The Departments having e-governance applications which are hosted in the State Data Centers will be benefited using KSWAN, since KSWAN is providing a secured intranet access with a dedicated bandwidth to the institutions at lower cost. Kerala State IT Mission is the State Implementation Agency for Kerala SWAN. Railtel Corporation took over KSWAN during 2018 for its management and operation under KSITM.

Highlights

- Kswan revamp completed
- Civil station lan in 10 districts (Campus Lan)
- Integration of NII with Kswan
- Implemented Mpls
- Ups replaced at district and block level
- Monitoring facility implemented

2.3 Secretariat Wide Area Network-SECWAN

State Wide Area Network (SWAN) is one of the key factors that constitute the backbone of e-Governance in the State. It promises effective communication and exchange of information leading to unified administration. In the present scenario, SWAN has become the most reliable and advanced communication infrastructure bringing effectiveness in overall Government-to-Government (G2G) functioning.

The implementation of Secretariat WAN covers strengthening of existing and future connectivity by networking Secretariat, Secretariat Annexe, VikasBhavan & Public Offices, Offices of Ministers & Secretaries to Government and departments in 6 blocks.

Secretariat Wide-Area-Network is the largest Campus-Area-Network (CAN) of the Government of Kerala in the state.

Secretariat Wide Area Network (SecWAN) project is mainly for establishing a State-of-the-Art OFC-based Network architecture in the Government Secretariat with a vision to improve the quality and availability of IT-enabled-Services at its administrative Headquarters. The re-engineering project is implemented by plugging the bottlenecks of the old network and complete upgradation of network equipment to meet future needs of the Government. The re-engineering project include up gradation/ replacement of Network Operations Centre (NOC) room equipment like Core switches, Distribution switches, Access switches and cabling till last mile and the re-engineering project is completed .

Highlights

Internet Protocol had been changed from DHCP to Static IP's to all the devices in Secwan Network.

- Internet Firewall had been upgraded from Fortinet Fortigate 800C to Fortigate 800D.
- Implemented Redundancy in Secwan Core Switches.
- Conducted 360 degree Network Security Auditing in Secwan Network.
- 1Gbps NII link from SDC2 via DHQ terminated in Secwan NoC for using eoffice application.
- 1Gbps NKN link has been terminated to Secwan NoC for the Internet usage.

2.4 PUBLIC WiFi (Hotspots)



കേരള സർക്കാരിന്റെ സൗജന്യ വൈഫൈ പദ്ധതി കെ-ഫൈ

എല്ലാ ജില്ലകളിലെയും തെരഞ്ഞെടുത്ത പൊതുഇടങ്ങളായ ബസ്സാൻഡുകൾ, ജില്ലാ ഭരണകേന്ദ്രങ്ങൾ, പഞ്ചായത്തുകൾ, പാർക്കുകൾ, പ്രധാന സർക്കാർ ഓഫീസുകൾ, സർക്കാർ ആശുപത്രികൾ, തീരദേശ മേഖലകൾ ഉൾപ്പെടെ രണ്ടായിരത്തോളം പൊതുഇടങ്ങളിൽ ഇപ്പോൾ ലഭ്യമാണ്.

തികച്ചും സൗജന്യമായി ദിവസേന ഒരു ജിബി വരെ 10 mbps വേഗതയോടു കൂടി കെ - ഫൈ ഉപയോഗിക്കാം

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Government of Kerala established 2000 public wifi hotspots across the state which will provide free internet services to the citizen. The hotspots locations are identified by the District Collectors which includes bus stands, tourist places, Parks, Public places, Jana

SevanaKendras, Govt. offices etc. In addition Public WiFi facility has also been made available in 222 fishing villages along the Kerala coast.

Benefits to the public

- Citizen can able to access 1GB free internet per day from the Hotspots using their smart phones, mobile devices or Laptops and perform social and business activities.
- Access various e-Governance, m-governance services, public content available in the State Data Centres without any limit from the Hotspot locations.
- Tourists can avail information on the major destinations, hotels, ticket and travel bookings using the hotspot services.

The citizens can easily connect with common service centers, government offices, government services, websites, on line payment modes etc on a faster and economic mode.

Highlights

- Completed 2000 wifi hot spots
- Bandwidth upgraded in locations of high bw usage like museum, thampanoor etc.
- Additional wifi spots established.

2.5 KERALA STATE SPATIAL DATA INFRASTRUCTURE



MAPATHON KERALAM
നമുക്കു നിർമിക്കാം

പെരിട്ടി മിഷന്റെ ബഹുതയായ ക്രൗഡ് സോഴ്സിങ് ഭൗതികമായ
മാപ്പത്തോണിൽ
അണിചേരുക

FOR DETAILS
KERALA STATE SPATIAL DATA INFRASTRUCTURE
KERALA STATE IT MISSION
ICT CAMPUS, VELLAYAMBALAM
THIRUVANANTHAPURAM, KERALA - 695 033
TEL : 0471 2332114
EMAIL : KSITM@KERALA.GOV.IN
WWW.MAPATHONKERALAM.IN

- GIS unleashed

Geographic information systems offer great potential for improving the operations of Government.

Kerala State Spatial Data Infrastructure (KSDI)

The Kerala State Spatial Data Infrastructure (KSDI) is a mechanism to provide geo-spatial data sharing at all levels of government, the commercial sector, the non-profit sector, and academia. KSDI facilitates a framework of geographic data, metadata and tools that are interactively connected in order to use spatial data in an efficient and flexible way through a Web-GIS platform (Kerala Geo-portal). – www.ksdi.kerala.gov.in. It acts as a central gateway which enables user to access organized spatial data (online/offline) for better planning and decision making.

2.5.1 Kerala Geoportal

KSDI is a part of National Spatial Data Infrastructure (NSDI) and can together contribute to the National Geographic Information System (NGIS) initiatives of the country as well as digital Kerala and e-governance, by promoting better governance, sustainable development, citizen empowerment etc. The Kerala Geoportal was launched on 18th January 2013 with ERDAS Apollo 2011 platform. It was a milestone in the field of Spatial Data Infrastructure throughout the State. The existing upgraded Geoportal built on ERDAS Apollo 2016 platform was launched on May 17, 2017. The upgraded portal enables the user/user departments for better planning and decision making through a WebGIS platform with several advanced tools and features.

To get more details please visit: <http://ksdi.kerala.gov.in/ksdi/>

2.5.2 Mapathon Keralam is being coordinated by the Kerala State IT Mission, with the concept of Let Us Make Our Map. Through the Mapathon Keralam, the Government of Kerala aims to create extensive local maps of Kerala including physical infrastructure natural resources and other information that are useful for planning and other developments. The free online map, OpenStreetMap (OSM), is used for this mapping event as part of Kerala government policy to strengthen activities focused on free knowledge and Free and Open Source Software. The project is being led by the Kerala State Spatial Data Infrastructure (KSDI) under the Kerala State IT Mission and supported by other institutions. Project got funding from Rebuild Kerala Initiative.

Key achievements

1. Elets India Transmission Award of Excellence.
2. +220000 Buildings, +18514 Km Stream network, +8000 Km Road Network, +27500 Assets were marked in OSM
3. +2000 New Mappers have joined from across Kerala
4. For more details www.mapathonkerala.in

2.6 Government Contact Center (GCC) – 24 X 7 Ensuring Credible. Professional. Quality service.



സർക്കാർ വകുപ്പുകൾ നൽകുന്ന
സേവനങ്ങളെ സംബന്ധിച്ച് എന്ത് സംശയമുണ്ടെങ്കിലും
വിളിക്കാം സിറ്റിസൺ കോൾ സെന്ററിൽ
ജനറൽ നമ്പർ : 155300 അല്ലെങ്കിൽ 0471 – 155300/ 2335523
അല്ലെങ്കിൽ 0471 2335523 (ടോൾ ഫ്രീ അല്ല)
സർക്കാരിന്റെ വിവിധ വകുപ്പുകൾ നടപ്പിലാക്കുന്ന സേവനങ്ങൾ,
കർമ്മ പരിപാടികൾ, പദ്ധതികൾ, ആനുകൂല്യങ്ങൾ, അവകാശങ്ങൾ
എന്നിവ സംബന്ധിച്ച വിവരങ്ങൾ **24 മണിക്കൂറും ലഭ്യമാണ്.**
പൊതുഅവധി ദിവസങ്ങൾ കോൾ സെന്റർ പ്രവർത്തിക്കുന്നതല്ല.

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The relevance of a Contact Centre for the Government of Kerala, increased in the context of e-Governance and with the implementation of the Right to Information Act 2005, for providing information to the citizens in a user-friendly manner.

The existing Government Contact Centre-Kerala, titled “Citizen Call Centre”, setup on 9th May 2005, provides Informational/Enquiry services and Grievance Redressal services. Grievance related services are offered on behalf of selected client departments only. GCC-K is a single window IT-enabled facility. Envisaged as a Government to Citizen (G2C) interface, the Contact Centre enables the quick dissemination of critical Government Information, which is inaccessible or for the citizens.

The Contact Centre which is under the administration of Kerala State IT Mission, functions on all calendar days including Second Saturdays and Sundays, but except Government declared public/regional holidays.

The salient features of GCC-K are:

- Bilingual support: Malayalam and English
- Round the clock services (except public holidays) by trained Contact Centre Executives, with the support of a group dialing system consisting 30 lines
- Serves more than 66 Clients including Government departments, organizations, projects etc.
- Act as a Knowledge Database of Government Services
- An average of 800 – 1000 calls, per day
- Access from anywhere in Kerala without any queue and delay, at local call rates

Over the recent years, an increasing need has been felt within the Government for improving the quality of service being provided to the citizen, through GCC-K. On 16th February 2019, the revamped GCC-K has been commissioned to transform the existing voice-based Contact Center setup into a state-of-the-art Contact Centre, providing multi service delivery channels as e-mail, social media, SMS etc. along with conventional voice enhanced by VoIP technologies. Apart from

these, integration of service delivery channels such as web portal, online chat, Mobile App etc. are in progress.

The revamped Contact Centre provides the following facilities:

- Multi channel support by leveraging the State-of-the-Art IT solutions
- Customer Relationship Management
- Interactive Voice Response System
- Call Recording System
- Campaign Management etc.

GCC-K Helpline Services

- General Number: 155300/ 0471- 155300 and 2335523/0471-2335523 (Non- Toll Free)
- Honorable Chief Minister's Office/Chief Minister's Distress Relief Fund (CMO/CMDRF) Helpline: : 155300/ 0471- 155300 and 2335523/0471-2335523 (Non- Toll Free)
- Aadhaar/UID: 1800-4251-1800 (Toll free)
- University of Calicut Helpline: 155300/ 0471- 155300 and 2335523/0471-2335523 (Non- Toll Free)/Commissionerate of Entrance Examinations: 155300/ 0471- 155300 and 2335523/0471-2335523 (Non- Toll Free)
- Food Safety Helpline: 1800-425-1125 (Toll Free)
- Kerala Water Authority Helpline: 1916 (Toll Free)
- Legal Metrology Helpline: 1800-425-4835 (Toll free)
- National Consumer Helpline: 1967 (Toll Free)
- Sabarimala Helpline with Multilingual Support: 1800-425-1606 (Toll free)
- State Consumer Helpline: 1800-425-1550 (Toll Free),Whatsapp support: 19400198198

3. CORE APPLICATIONS

3.1eOffice



E-office, is an integrated digital workflow management suite designed exclusively to handle the operations of government departments. It was deployed with a vision of achieving one government - one-file flow system, which aims at enhancing governance through more effective and transparent office procedures, enabled through a mobile and virtual digital office.

The Govt vide G.O.(Ms) No: 22/2015/ITD dt 16/07/2015 has given administrative sanction for implementation of eoffice in 14 Collectorates, 21 Sub Collectorates and 75 Taluks and Land Revenue Commissionerate at an estimated cost of Rs.20 Crore.

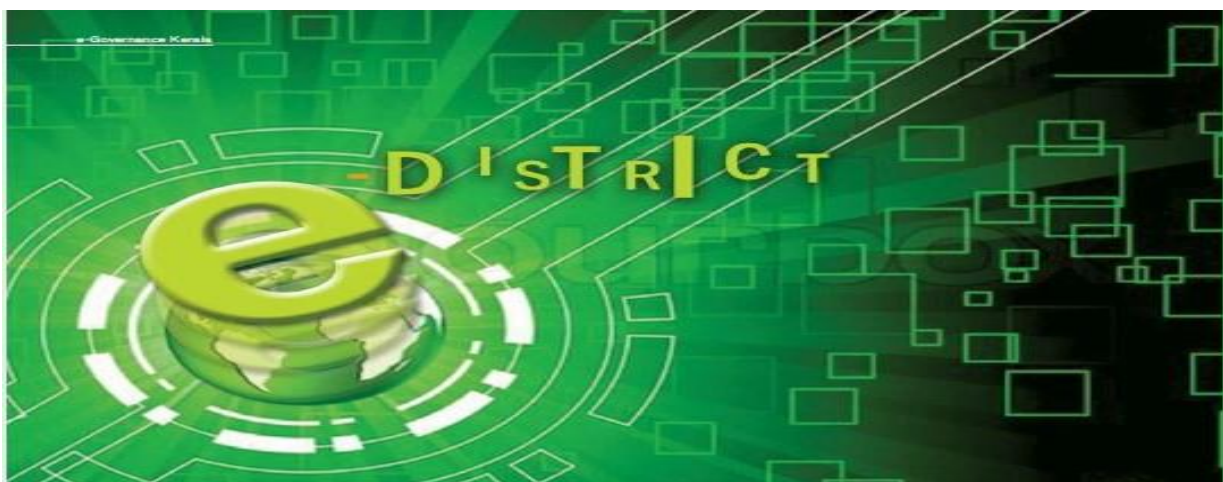
Current Status

- Departments in Secretariat (100%)
- Collectorates (100%)
- Sub Collectorates /RDOs(15)
- Directorates/Commissionerate/Other Government offices (64 implemented)
- Taluks /Village Offices (Piloted)
- Training on e-Office imparted to > 30,000 end-users
- Electronic file movements > 500,000 per month

Highlights

- Innovations – Tapal tracking mechanism, Single Sign-On
- Implementation - Implemented in 50+ Directorates / Department / PMUs
- Support – Streamlined Support with technical assistance and support site
- System Administration – Action for the redundancy in case of a failure
- Training – Shifting to Online training videos

3.2 e- DISTRICT PORTAL



→Driven by District e-Governance Society

Generally, most of the Government to Citizen (G2C) interactions are taken place at District level. Districts, thus act as front-end windows of Government to deliver customized services to the public in an efficient way.

The Government of India conceptualized e-District project in 2010, to improve the experience of G2C interactions and thus enhance the efficiency of seamless service delivery to the Citizens. This will also help in redesigning the District level departmental activities to provide better service.

In line with this scope, Government of Kerala has initiated an end-to-end online service delivery platform that ensures transparency and integrity throughout the exchange of information between the Government and the public. . Concisely, Citizen's expectation towards Government's response time will be improved because of this automated virtual counter.

A number of sensitized services are made available to the public through e-District portal <https://edistrict.kerala.gov.in/> on a 24X7 basis. The portal is maintained and monitored by KSITM.

The major citizen-centric services available through the e-District portal are:

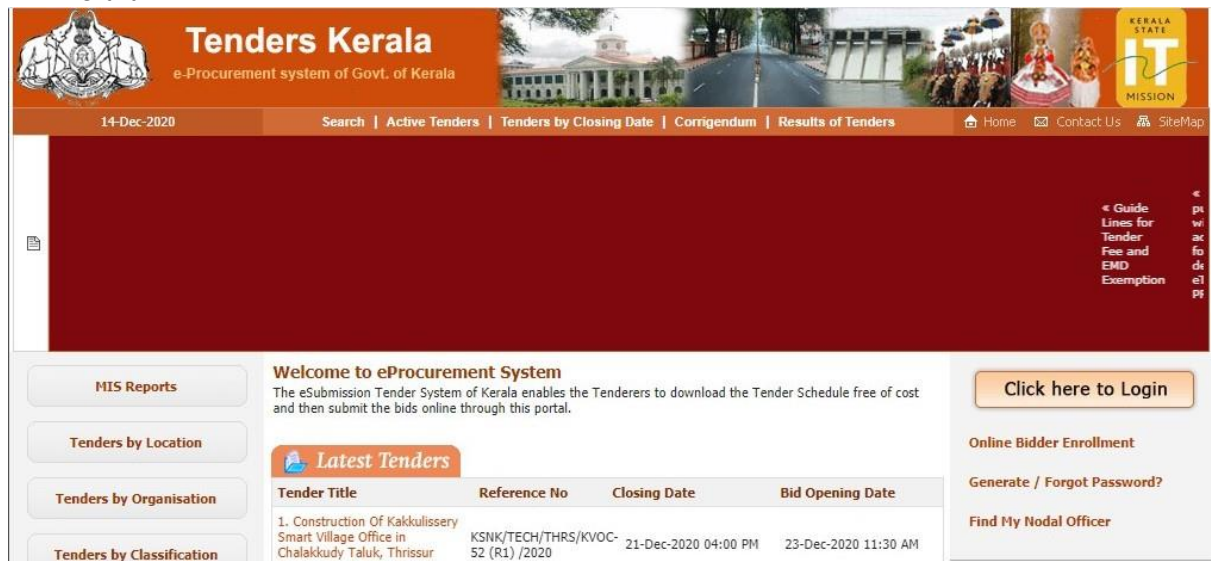
- ◆ Revenue Department Certificate Services
- ◆ Right to Information (RTI) Services
- ◆ Public Grievance Services
- ◆ Payment Services- Utility Payment Services, Calicut University Services, Welfare Board Fee Payments, Police Department Payments
- ◆ Revenue Court Cases
- ◆ Forest Department Services
- ◆ Life Mission Grievance Redressal

Highlights

- 5.7 Cr Digital Certificates issued through Dsitric Portal.
- Implemented non creamy layer certificate service
- Introduced assets management system
- Added few utility payments like motor welfare board etc
- Implemented FTTH connectivity to 1200 village offices
- RTI & Public Grievance Services: Applications under Right to Information Act 2005 (RTI) is available in eDistrict application for department to use.
- District Collectors conducting monthly Parathi Parihara Adhalath using the Public Grievance module of eDistrict.
- Online utility bill payment systems enabled in e-District portal: Online payment services such as Water bills, Electricity bills, Telephone bills, Calicut University Exams & General remittances, Labour & Culture Welfare Board fee payment services, Police department e-chellan services are available in e-District application.

- Forest Department services: The Following services under Forest depts are provided to public through e-District application;1 Compensation for death due to wild life attack, Compensation for injury due to wild life attack, Compensation for crop damage due to wild life attack, Compensation for cattle loss due to wild life attack, Compensation for property damage due to wild life attack, Compensation for house damage due to wild life attack

3.3 E-Government Procurement [e-GP] : e-Tendering portal of Government of Kerala



The screenshot shows the 'Tenders Kerala' e-Procurement system of the Government of Kerala. The header includes the Kerala State IT Mission logo and the text 'Tenders Kerala e-Procurement system of Govt. of Kerala'. Below the header, there is a navigation bar with links: Search, Active Tenders, Tenders by Closing Date, Corrigendum, Results of Tenders, Home, Contact Us, and SiteMap. The main content area features a 'Welcome to eProcurement System' message, a 'Latest Tenders' table, and a 'Click here to Login' button. The 'Latest Tenders' table lists the following tender:

Tender Title	Reference No	Closing Date	Bid Opening Date
1. Construction Of Kakkulissery Smart Village Office in Chalakkudy Taluk, Thrissur	KSNK/TECH/THRS/KVOC-52 (R1) /2020	21-Dec-2020 04:00 PM	23-Dec-2020 11:30 AM

Additional links on the right side include: Guide Lines for Tender Fee and EMD Exemption, Online Bidder Enrollment, Generate / Forgot Password?, and Find My Nodal Officer.

e-GP is a **Mission Mode Project (MMP) of the Government of India**, aimed at increasing transparency in all Government procurement & the project commenced in 2011.

- KSITM is handling the PMU (3 staff) as well Helpdesk Support (6 staff), *on a state-wide mode*. The PMU undertakes administrative level requests from tenderers as well as bidders, apart from co-ordinating the activities of the service providers, NIC-SBI. The Helpdesk is carrying out support services to the tenderers & bidders, including technical support over phone, remote access & administration, training etc.
- All Government of Kerala depts./Boards/Universities/Organisations were directed to adopt e-Tendering for all tenders with value above Rs. 25 Lakh. In 2015, the mandate was revised across all Government organisations in the state, for all tenders above Rs. 5 Lakh.
- Tender publication, bid submission, evaluation etc. are done through this portal. Payment of Tender Fee, EMD, refund of EMD etc. are done online using the e-Payment module of SBI.
- Around 4 Lakh tenders have been floated through the portal as on date, by **54 Government of Kerala depts. as well as 270 Government organisations**. **Approx. 33,000 bidders** have been registered in the portal.

Highlights

- No. of Government Departments online: 54
- No. of PSUs/ Boards/ Autonomous Bodies/ Govt. Agencies online: 343
- No. of Officials registered in the e-Procurement System (from December 2011 – 30/11/20): 15261
- No. of bidders registered in the e-Procurement System (from December 2011 – 30/11/20): 45017
- No. of Department/ PSU/ Autonomous Bodies officials trained (from December 2011 – 30/11/20): 17077
- No. of Bidders trained (from December 2011 – 30/11/20): 7803

3.4 Video Conferencing Experience Seamless Collaboration



For any Government body, communication is a fundamental and imperative requirement. Efficient and secure communication forms the foundation stone for the inter-departmental exchange of ideas. Every move within the Government is guided by thoughtful, strong and effective communication. To crack the walls of conventional conference rooms, Government of Kerala has collaboratively crept into Video Conferencing Solutions.

The Video Conferencing initiative was implemented for Government of Kerala by KSITM in 2005. It changed the entire outlook of the scenario for faster and smooth inter-departmental communication, information sharing within different Government agencies leading to faster decision making.

Features

- Increased inter-departmental collaboration
- Improved Face-to-face mass communication between Public sector representatives

- Better working environment
- Location-independent and real-time communication access
- Improved emergency management
- Cost-effective by saving the travel expense
- Can easily be integrated with day-to-day changing proceedings of all departments
- Single point of control for multiple conferences
- Audio conference connectivity to participants' mobile or landline

Book your Schedule

- ✓ Email: vc.ksitm@kerala.gov.in (Departmental request for availing VC services should reach to this mail ID/as letter to KSITM Director three working days before proposed date).

How to avail VC service: For availing Video Conferencing service, Departments may send letter to Director, Kerala State IT Mission or email tovc.ksitm@kerala.gov.in. The request for availing the VC should reach **three working days** before the proposed VC, preferably by email for speedy action.

Highlights

First online Cabinet Meeting held in Kerala amid covid19 crisis. Chief Minister participated from his official residence and other cabinet ministers took part in the meeting from their office or residence. This is the first time in the history of Kerala such an online initiative has happened & it was decided to go online mode after the state has seen a spike in the Covid 19 crisis. This Virtual Cabinet Meeting was successfully organized by Kerala State IT Mission through its Video Conferencing Solution. During this covid pandemic period more than 2000 such online meetings were organized by KSITM for Chief Ministers office and for other ministers and departments and more than 10000 plus people have participated in VC and around the world, to whom Chief Minister has interacted.

4. SERVICE DELIVERY PLATFORM

4.1 AKSHAYA – Experience Everlasting Customer Service



അക്ഷയ
ജനസേവനത്തിന്റെ
17 വർഷങ്ങൾ

പൊതുജനങ്ങൾക്ക് വിവിധ സേവനങ്ങൾ വീട്ടുപടിക്കൽ എത്തിക്കുന്ന സർക്കാരിന്റെ അംഗീകൃത ജനസേവന കേന്ദ്രങ്ങളാണ് അക്ഷയ കേന്ദ്രങ്ങൾ. സംസ്ഥാന, ജില്ലാ ഓഫീസുകളുടെ മേൽനോട്ടത്തിൽ പ്രവർത്തിക്കുന്ന അക്ഷയ കേന്ദ്രങ്ങളിൽകൂടി പൊതുജനങ്ങൾക്കു അവരവരുടെ വിലപ്പെട്ട രേഖകൾ വിവിധ സർക്കാർ/സർക്കാരിതര സേവനങ്ങൾക്കായി സുരക്ഷിതമായി സമർപ്പിക്കാം.

വിശ്വസ്തം സുരക്ഷിതം ആധികാരികം

fb.com/keralastateitmission itmission.kerala.gov.in

India's first step in taking ICT to the masses has been rolled-out in Kerala, named as Akshaya the state's first district-wide e-literacy project, one of the largest known Internet Protocol (IP) based wireless networks in the world. As a part of Akshaya, at least one person in each of the 65 lakh families in the State will be made IT-literate. This project, piloted in Malappuram district has evolved into one of the most dynamic interventions in public-private-partnerships in the State.

Akshaya was conceived as a landmark ICT project by the Kerala State Information Technology Mission to bring the benefits of this technology to the entire population of the State.

Akshaya is acting as an instrument in rural empowerment and economic development. Quality ICT dissemination and service delivery facilities (Akshaya Centres) has been set up within a maximum of 2 kilometers for any household and networked leveraging entrepreneurship.

AKSHAYA, an innovative project implemented in the State of Kerala aimed at bridging the digital divide, addresses the issues of ICT access, basic skill sets and availability of relevant content. Akshaya Service delivery facilities are set up within a maximum of 2 kilometers for any household and networked leveraging entrepreneurship.

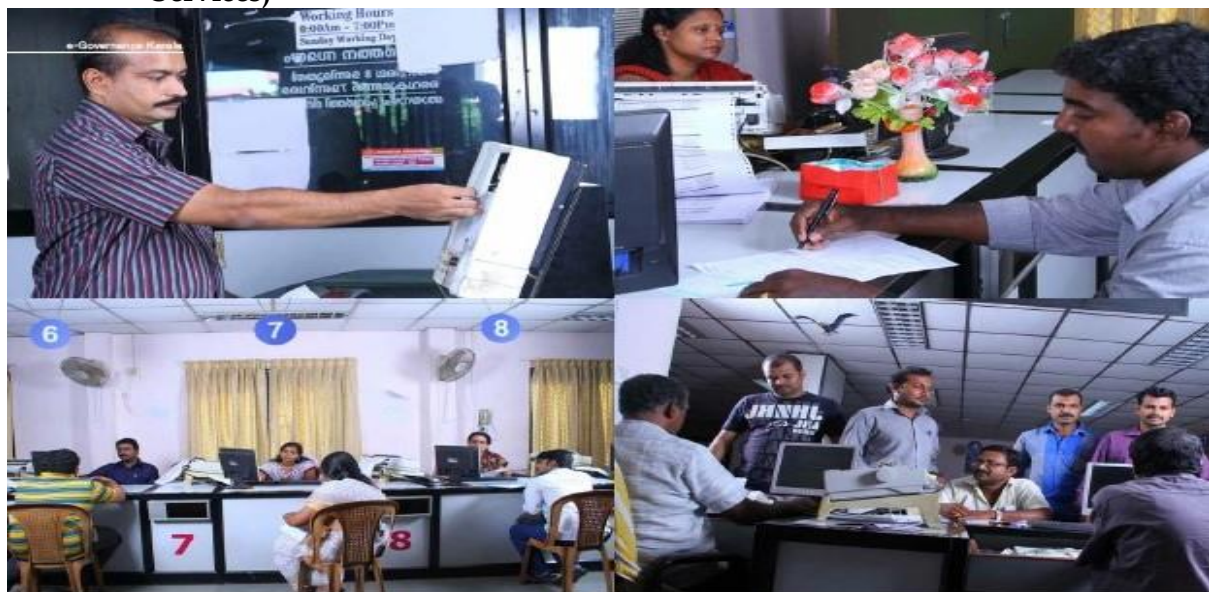
Kerala is the first State in India to take initiative for the mass transformation of ICT by the implementation of district wide e-literacy project 'AKSHAYA' in 2002 (G.O.(MS.)22-2002-ITD), with an intention of 'Empowering Kerala'. The venture paved the way for the migration of Kerala to the first e-literate state.

Akshaya Centers are identified as the medium for delivering services between Government and Citizen (G2C) and Kerala State IT Mission is one of the core partners in the implementation of the Akshaya projects in the state.

Akshaya has more than 2700 Akshaya Centres spread over every nook and corner of the State, delivering multitude of Government to Citizens (G2C). More than 700+ Aadhaar enrolment centres working successfully state-wide and more than 1700+ Akshaya Centre acting as banking Kiosks for different banks. 5.5 million citizens enrolled under UID through Akshaya Centers. In UID Enrolment Akshaya has the highest quality of 92.7% against the national average of 62%. Akshaya is also a premier agency in UID Enrolment having generated 75% of total UIDs in Kerala. Akshaya offers enrolment facility for new born babies and bedridden cases as well across the state. **Social Security Pension Mustering** has been successfully undertaken through akshaya centers across the state and more than 50 lakhs beneficiaries benefited out of this. Data entry, Data digitization at PHC, airports etc were successfully carried out with the tremendous support from Akshaya. Live webcasting was successfully co-ordinated with Keltron for lok Sabha, assembly and local body elections timely.

For details log on to www.akshaya.kerala.gov.in

4.2 FRIENDS (Fast Reliable Instant Efficient Network for Disbursement of Services)



FRIENDS is a single window 'no queue' integrated remittance centre, where the citizens have the opportunity to pay all taxes and other dues to the Government, under one roof at no extra cost. An on going project of KSITM, FRIENDS is now operational in all 14 districts of Kerala.

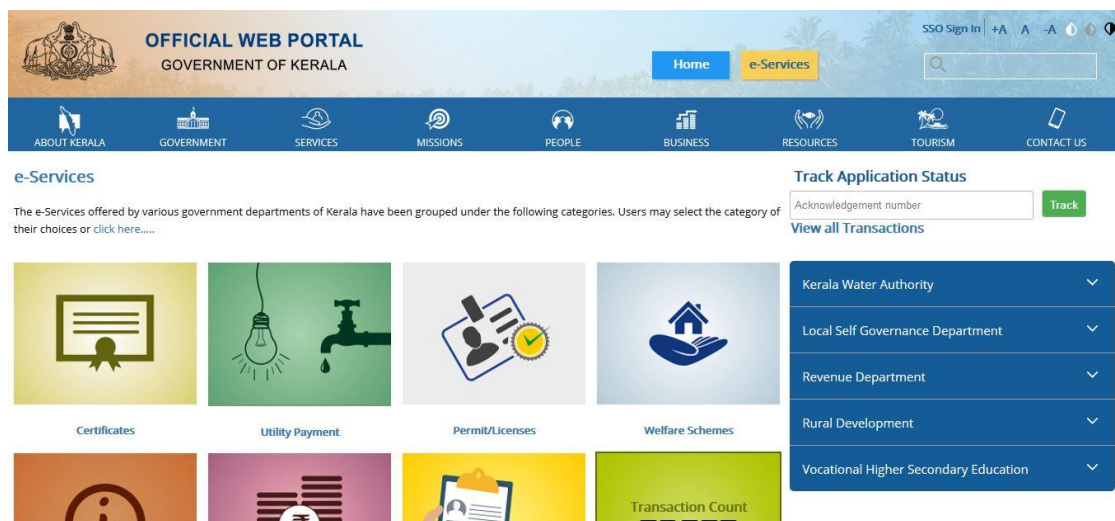
FRIENDS accept payments of the Kerala University, MG University, Calicut University, Local Bodies, Kerala State Electricity Board, Kerala Water Authority, Revenue, Civil Supplies, Motor Vehicles, Electrical Inspectorate and BSNL. Railway reservations can also

be made in the three centres at Wayanad, Pathanamthitta and Malappuram. The computerized counters work from 8.00 am to 7.00pm, including all Sundays. Pilot at Thiruvananthapuram in June 2000, this centre has now earned the benchmark ISO 9001: 2000 certification. KSITM joins hands with the IT Department of the Government for the project implementation. A year later, all 14 districts had one centre each. The enterprise enabled 'any-where any-payment system' titled 'FRIENDS Re-Engineered and Enterprise Enabled Software' (FREES), developed by National Informatics Centre, Kerala is a centralised web enabled system that help the citizens to pay utility bills at any FRIENDS centre. FREES Application has centralised database system with the feature utility payment can be done on any FRIENDS or AKSHAYA all over Kerala with a single user interface. Through this system new services or agency can be added without changing the software. It has online data fetching and updation from and to the departmental servers- for Vehicle Tax, Water Bill and Property Tax.

Highlights

- Migrated of Broadband service to FTTH in all FRIENDS Centres.
- Integrated of utility payment of Tailoring Welfare Fund Board, Artisans Development Corporation and Motor Welfare Board and integrate Vahan Saradhi.
- Revamped all FRIENDS centers and Included various new services into frees like IKM services, building tax etc

4.3 Kerala State Portal & State Service Delivery Gateway-SSDG



- **Government Services through single Portal : (www.kerala.gov.in)**

State portal and SSDG project has been formulated under the National e-Governance Plan (NeGP), which aims to make all Government services accessible to the common man in his locality, through common service e-delivery outlets and ensure efficiency, transparency & reliability of such services at affordable cost to realize the basic needs

of the common man. e-Forms application will enable citizens to download forms and submit their applications electronically with help of Electronic Forms hosted on the State Portal (SP) and routed by a common services gateway (SSDG). This important initiative facilitating Electronic Service Delivery will provide significant benefits to the citizens especially in the form of a single gateway to citizen for service delivery.

As of now 44 services from 5 departments are available through the state portal . Electricity bill, University Challan, VHSE and Bulding Permit to name a few.

Revenue department Certificate download like Income, Caste, Life and Local Self Govt certificates like Birth, Death, Marriage could be retrieved through state portal.

Police Petty is also ready and will be LIVE soon. PayGov - internet banking offered by 62 banks, credit cards, debit card. SBI MOPS payment facilitate internet banking offered by 45 banks, credit cards, debit card etc. without any additional transaction charges. As of June 2020, state portal has 5.96 L Transactions and 1.75 L registered users

The single window for e-Governance services offers multiple payment options that suits the requirements of common man. Through the State Portal, the citizens can mainly avail the services of Kerala Water Authority, Kerala State Electricity Board, Panchayat, Rural Development, Calicut University, Revenue Department, VHSE, Motor Vehicle Department and Registration Department. 57 services of various departments are being provided initially through the State Portal for the Citizens. This includes payment services like KESB, KWA bill payments, Calicut university payments like exam fees payment etc. More and more services will be added to the Portal in near future. Few Highlights are

- e Sangam Integration
- Migration of LSGD services from liferay has been completed successfully
- Building Permit service -completed successfully
- e-procurement achievements
- Integration of MOPS - The NEFT/RTGS payment system was replaced with MOPS.
- On boarded 1000 + new offices in to the e-procurement portal which includes majority offices under LSGD, Block panchayath, KWA, PWD and Panchayath

The state portal is undergoing revamping under Cdit for upgrading and migration of services.

4.4 Mobile Governance & e-SMS Gate way Be smart through a Smarter Government'



In Kerala, E-governance is trying at its level best to provide Government services to citizens through technology-driven platforms. With the increasing Smartphone penetration at this current mobile era, there is a need for transforming E-governance services to M-Governance, and thus promising the delivery of services even a step closer.

M-Governance in Kerala is perhaps the first comprehensive project of its kind undertaken by any State in the country. This is a powerful and expanded transformation that enhanced the capacity to extend access to existing services, to deliver new services and thereby stimulating the active participation of Citizens in Government operations.

m- Governance is a boon to the public because it has the potential to liberate users from the physical/location constraints inherent in conventional service delivery and traditional e-Government services. It aids to make the Government services more responsive. Kerala State IT Mission is the implementation agency of Kerala m-Governance.

4.4.1 m-Keralam" Unified Mobile App for Govt. Of Kerala"

As per the government's commitment to citizen to provide the services hassle free, timely and more effective, the government has come up with an excellent initiative - **m-Keralam**, a unique Mobile application which will act as a single window set up to access government services any time anywhere, with one time registration.

"mKeralam" - The Unified Mobile Platform launched by Government of Kerala, is envisaged to bring together all the services rendered by different Government Departments under one umbrella. Without stepping in to the government offices, one can easily access the departmental services through this single window application. At

present there are around 100 services from 17 different departments that has been integrated to mKeralam.

Through the Application, the citizens of Kerala can pay KSEB and KWA bills, access old payment history, bill details, meter readings etc; Calicut University payments for various purposes can also be paid through the application. The citizens can also access services to get Birth Certificates, Death Certificates, and Marriage Certificates etc.

The various services of Revenue department such as applying for caste certificate, Destitute certificate, Life certificate, Income Certificate, Inter-caste Marriage Certificate, Minority Certificate, Solvency Certificate etc.can be accessed by citizens through this application.

Apart from this, various other departmental services from Motor Vehicle Department, Tourism Postal, Lottery, Police, Meteorological, Welfare Fund Board etc can be availed using mKeralam.

Another highlight of the App is that the citizens can search for various government schemes offered by government and find out which welfare schemes suit the most and one can subscribe to the most suited one. This way, the government is taking its best efforts to bring the various scheme benefit information to the citizens' finger tips.

As a part of the Government's commitment to bring its services to the citizen's fingertips at any time, mKeralam is envisaged to on-board all the various department's services within a short span. The first phase of the App is being launched with 100 services from 17 different departments for the citizens of the state.

The App is presently undergoing revamping for upgrading.

5. UIDAI Aadhaar Services – KERALA STATE RESIDENTS DATA HUB My Aadhaar, My Identity & My Rights



Aadhaar is a 12-digit unique number issued by the Unique Identification Authority of India (UIDAI). The unique identification number is generated based on a person's biometric details such as iris scan and fingerprints, and demographic information like date of birth and address, taken at the time of enrolment. This number will be served as a Citizen's proof of identity and address, anywhere in India. Now, Government of India has mandated Aadhaar enrolment for all citizens including infants.

Govt of Kerala has been assigned as the state registrar for Aadhaar enrolment. IT Department Kerala has been approved as the nodal department and Kerala State IT Mission (KSITM) has been approved as the nodal agency for Aadhaar enrolment in the state. Akshaya Project under KSITM acts as the Enrolment agency and conducts Aadhaar enrolment through the Akshaya Centres. In addition UIDAI has approved, Kerala State IT Mission as the Authentication User Agency(AUA) and e-KYC User Agency (KUA) for offering the Authentication and e-KYC services offered by UIDAI. BSNL acts as the Authentication/e-KYC Service Agency (ASA/KSA) for these services by transmitting the transactions from and to UIDAI server.

5.1 Aadhaar Enrolment

Kerala has achieved about 100% of Aadhaar generation. Currently 22% of 0-5 year old, 87% of 5-18 year old and 110% of 18 years and above have received Aadhaar.

5.2 Aadhaar Enrolment Centres

Government has embarked on a drive to make Aadhaar Enrolment and Update facility to be easily accessible. KSITM has provided finger print devices, Tablets to about 2,700 Akshaya Centres to this effect. Currently there are about 900 Permanent Enrolment Centres, 1,500 Child Enrolment Centres by Akshaya CSCs to facilitate Aadhaar Enrolment and changes to details in Aadhaar. Banks and Post Offices have also started setting up of Enrolment Centres across the state.

5.3 Aadhaar Enrolment for age group 0-5 years old

Kerala Government has given focus for enrolment to 0-5 years old by conducting Aadhaar enrolment camps with the help of Anganwadis and Akshaya Centres. Many camps have been conducted in all the districts and further camps are being conducted to target the remaining population.

5.4 Aadhaar Enrolment for new entrants in schools

Kerala government had arranged Aadhaar enrolment camps at Schools with the help of Education Department and Akshaya for new entrants in schools for standard one and other classes. This is a regular yearly exercise.

UIDAI has provided funds for procuring two sets of Aadhaar Enrolment kits at selected schools numbering 278 and the process is being initiated.

5.5 Aadhaar Enrolment for bedridden/challenged/aged

Currently Aadhaar enrolments of Bedridden/Challenged/Aged are being undertaken by visiting their homes and conducting enrolments. This is done with the assistance of LSGIs. Requests for special consideration for bedridden cases are taken up with UIDAI.

Highlights

- Pensioner Registration and Life Certificate mustering for Social Security and Welfare Board Pensioners numbering about 50 lakhs. Weeded out bogus beneficiaries
- Ration Card Beneficiary identification using Aadhaar biometrics for 80 lakh cards. Upto 12 lakh transactions per day during peak days. Bogus beneficiaries were identified.
- Integration of Aadhaar services in e Health for identification of beneficiaries.
- Integration of Aadhaar for PSC candidate verification during profile registration and Aadhaar seeding.

5.5.1 Seeding Status in Departments

The Aadhaar seeding status are as given below:

- PDS - 90%
- NREGA- 99%
- Social Security Pensions - 97%
- Election Department - 73%
- IT@School Students data- 96%

5.6 Helpdesk and Citizen Call Centre

Issues raised by Residents are resolved by Citizen Call Centre and Helpdesk. Those which could not be resolved are raised to UIDAI for redressal. Daily about 200 queries are handled by Citizen Call Centre and Helpdesk together. Requests for assistance on Aadhaar details where linking was not possible for PAN Card linking, SIM Card linking and Bank Account linking had been taken up with UIDAI wherever assistance is required from them.

5.7 Aadhaar based Services

- Kerala State IT Mission is an approved Authentication User Agency and eKYC User Agency and provides authentication and e-KYC services. Currently about 30

departments have on-boarded to these services. About 6 crore transactions have been conducted so far.

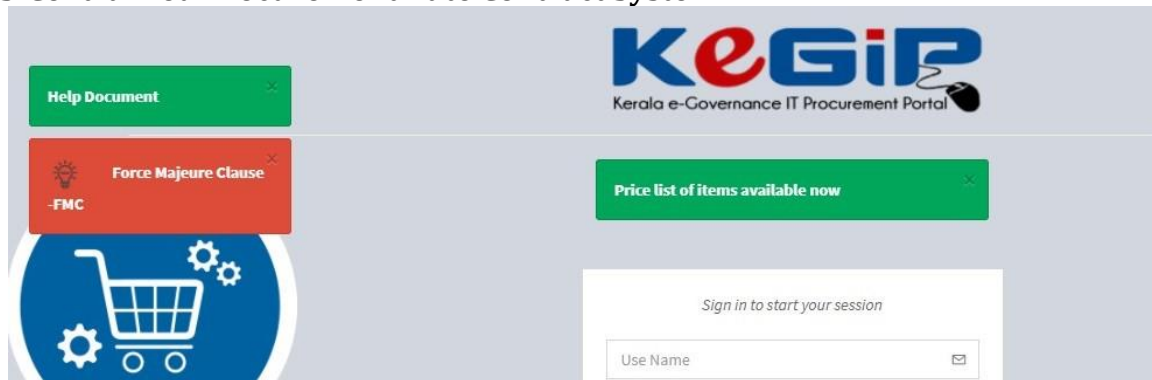
- PDS is using Aadhaar for the e-PDS scheme for distributing ration items and is currently being implemented in all the ration shops.
- A pilot survey of Pensioners was conducted and a Life Certificate mechanism for pensioners has been introduced.
- LSGD for Welfare Pensioners, SPARK Payroll for Contract Employees, Election Commission, Food and Civil Supplies departments, IT@School, e-District, Dairy Farmers Welfare Fund Board and many other departments have used the services for de-duplication of beneficiaries, providing Life Certificate to pensioners etc.
- Ghost beneficiaries were eliminated using seeding and by the implementation of Aadhaar services.
- Currently upto 10 lakh transactions per day are being conducted for the Aadhaar services
- Presently, NREGA is effecting around 94% of wage payment through Aadhaar based DBT.
- Plans are afoot to rollout these services to more departments to provide Direct Benefit Transfer for Pensions and Scholarships and also to rollout Aadhaar based eSign, Digital Locker services.

6. Digilocker



1. Integration of SSLC certificates from 2018
2. Integration of Ration Card for authenticated beneficiaries.
3. Certificate Adalat during 2018 and 2019 floods for retrieving lost certificates.
4. Integration of KPSC for publishing OTV certificates

7. CPRCS-Centralized Procurement Rate Contract System



- Developed & maintained a portal that aggregates the hardware requirements by the entire State Government depts., agencies, Universities etc.
- Created an end-to-end, easy-to-use online mechanism for procurement of IT hardware for GoK depts.& agencies
- Desktops, Laptops, Printers, Photocopiers, Scanners & UPSs of different configurations suitable for office use offered through this platform.
- Rate contract entered into with OEMs. As such, price achieved for the above-mentioned hardware much below the market price & those offered through other online platforms
- Payment to treasury by depts through BIMS integrated with CPRCS

8. INFORMATION SECURITY/ CYBER SECURITY INITIATIVES

8.1 Computer Emergency Response Team, Kerala (CERT-K)

Securing the eGovernance Infrastructure



Computer Emergency Response Team-Kerala (CERT-K) was set up in May 2010 and since then, CERT-K has been instrumental in building resilience into the critical information infrastructure of Kerala.

CERT-K has become the state center to address the states information security needs and safeguard the local society drive towards technological excellence. CERT-K is working to harmonize the secure use of technology through best practices, standard policies, risk

mitigations and dissemination of valuable information. CERT-K helps to protect citizens as well as critical businesses and organizations against cyber security risks. It also contributes to the national cyber security posture, advices on policies and security standards and empowers the confidence in technology users.

As per the Crisis Management Plan for countering cyber attacks and cyber terrorism prepared by Government of India, States should draw up their own sectoral Crisis Management Plans and implement the same. The purpose of CERT-K is to coordinate security efforts and incident response for IT security problems on a state level in Kerala and to enhance the security of State Government's Communications and Information Infrastructure through proactive action and effective collaboration. CERT-K shall also oversee the implementation of crisis management plan of the Government of Kerala.

CERT-K Services

- 1.Security Auditing: CERT-K has given safe to host certificate to 100+ websites/web applications that belongs to Government of Kerala during the period 2018- 2019 June.
- Incident Management: CERT-K has reported/analysed over 20+ defacement incident during 2018-2020.
- Security Alerts: CERT-K provided alerts and preventive measures for the Government Departments/SDC against the advisories of latest security patches of CMS, OS patches, SSL, programming language etc.
- Vulnerability assessment conducted as per the notification from NCIIPC
- Proactively carried the Vulnerability Assessment of 200+ domains SSL expiry details.
- Conducted GAP analysis study on existing IT infrastructure of Kerala State Power and Infrastructure Finance Corporation Ltd. (KSPIFC)
- Cert-K has successfully conducted infrastructure security audit(sever security) of MIS Planspace.
- Critical Information Infrastructure (CII) in Govt of Kerala has been identified and documented for further procedures.
- Collaborates with CERT-In and Cyber Crime Police Station in investigation of cyber security incidents.

9. CAPACITY BUILDING

9.1 VIRTUAL IT CADRE (VITC)

The Virtual IT Cadre project seeks to form and train an effective IT team for driving e-Governance projects within various departments in the state. Virtual IT Cadre training will help build a strong in-house team to conceptualise, implement and manage e-Governance projects within state government departments.

‘Virtual IT Cadre’ interacts with the Department of Information Technology/ Kerala State IT Mission for all technical matters and maintains a dotted line relationship with both the agencies. After training, ‘Virtual IT Cadre’ members continue with their normal role in their respective departments and would also help in the implementation of e governance projects in the departments.

Virtual IT Cadre Pilot Phase

The formation of VITC was proposed to be done in a phased manner. Vide GO (Rt) No: 05/2015/ITD dt 21/01/2015, the Government accorded sanction for the creation of VITC in the first phase with 30 members from 16 departments at Govt Secretariat. The training was coordinated by KSITM through IIITM-K.

Roll Out of Virtual IT Cadre

As the Pilot phase was a huge success, it is recommended that the programme be rolled out to field departments. The Department may form VITC with members from various offices.

Objectives of VITC

- Establish in-house IT team in department who will drive IT and eGovernance in the department.
- Capacity Building to enhance and upskill a young vibrant team enthusiastic to take up IT activities.
- Help and advise senior executives and leadership in driving IT in the department.

Implementation Approach

- ➔ The Department Head nominates skilled and qualified personnel having an aptitude for IT and ability to drive e-Governance projects.

- ➔ The Department Head may request Director, KSITM for VITC training.
- ➔ VITC training to be scheduled at IIITM-K, Thiruvananthapuram. IIITM-K to arrange sessions by experts in various Topics customized to department needs.
- ➔ VITC shall interact with KSITM/ Electronics and IT Department for all technical matters and shall maintain a dotted line relationship with KSITM/ E&ITD.
- ➔ The State e-Governance Mission Team (SEMT) shall act as mentors to VITC.
- ➔ After training, VITC members shall continue with their normal role and would also help in e-Governance activities in their departments.
- ➔ The Head Of Department shall assign responsibilities to VITC members in driving IT / e-Governance related initiatives in the department.
- ➔ The Head Of Department shall encourage VITC members to proactively come up with new project proposals to automate and ease business functions and their efforts in taking up such added responsibilities shall be recognized.
- ➔ KSITM may also use services of VITC to drive eGovernance in the departments.
- ➔ VITC shall be considered for follow up trainings by KSITM and for trainings/ workshops elsewhere.

9.2 Post Graduate Diploma In eGovernance [PGDeGov]

Capacity building among Government departments is one of the most important requirements for successful implementation of e-Governance programmes. This aspects has been stressed both under the national e-Governance programmes as well in the IT Policy 2007 of Government of Kerala. Based on the recommendation of the Administrative Reforms Commission on promoting e-Governance, State Government has proposed Capacity Building in the individual level by starting a Diploma/Degree programme on e-Governance.

The Institute of Management in Government (IMG) and Indian Institute of Information Technology and Management - Kerala (IIITM-K) jointly conduct a one year Post Graduate Diploma in e-Governance which aims at high standards in Information Technology, Management and Governance. The objective of the course is to help the participants to

understand how to manage e-Governance projects implemented in the state. The course is spread over 2 Semester with a total duration of one year.

Details of the Course

- Bachelor's degree in any discipline with computer proficiency. Diploma / certification in computer application / IT will be an added advantage. Preferences will be given to B Tech / MBA / MCA degree holders.
- **Course Fee:** The course fee is Rs.75,000/-.
- **Course Coverage:** In order to help the participants align the outcome of the course with their areas of interest the classroom sessions have been divided into Core courses and Elective courses and they are grouped under the following three disciplines.
 - E-Governance
 - Management
 - Information Technology

As part of the course, the candidates are required to undertake a project work in the final semester. The programme also includes lab sessions in IT and soft skills.

10. Kerala Mobile App Store



In order to harness the potential, reach and simplicity offered by mobile technologies vis a vis, high mobile penetration levels and ever increasing smart phone adoption in the state, KSITM has developed an unified mobile application which serves as a single point of access for citizen facing applications. As the Government of Kerala is planning to roll out 2000+ WiFi hotspots it is pertinent to develop a few more mobile apps that has multifarious uses. Accordingly based on a proposal mooted by KSITM, 40th Executive Committee of IT Mission has taken a decision to identify and develop atleast 15 important mobile applications and also decided to build Kerala's own AppStore

which will display all m-governance applications developed by various Government departments and agencies. The list can be viewed @ <https://kerala.gov.in/kerala-app-store>. The design of the landing page is not yet finalised. As of now, more than 55 mobile apps are displayed in the store.

11. IPMC: Investment Promotion & Management Cell

As part of promoting startups in the state, these new mobile applications are planned to be developed through startup companies which are already registered under Kerala StartUp Mission. This Appstore will be helpful for citizens of the state to easily identify various State funded mobile apps than searching it on Google playstore. The Appstore offers mobile apps developed in Android as well as IOS Platforms.



various services which could be delivered online. A State Level Committee needs to approve grant of SIS above Rs.10 lakhs. Investment and Promotion Management Cell in the Kerala State IT Mission, headed by the Director of KSITM, registers and administers the incentive schemes for the eligible IT units.

The aim of the scheme is to put in place a package of incentives, which will make Kerala one of the most attractive destinations for IT in the country. The activities envisaged in the cell include disbursement of incentives to eligible IT units, administration and contingent expenditure, support for IT Units etc.

Fiscal incentives are applicable to all eligible companies operating in Kerala other than those located within a Special Economic Zone (SEZ).

12. Kerala e Governance Awards-IMG

To recognise, motivate and promote the departments to deliver more citizens centric e-governance services, the Government of Kerala has instituted eGovernance

Awards that are awarded annually. IMG has been entrusted with the responsibility of State e Gov Awards every year and KSITM provides technical support and financial aid for the smooth conduct of the same. State Eov Award 2018 has been declared last year December 2020 through press release amid Covid crisis.



13. Digital Empowerment Campaign through Social Media-Covid 19



KSITM has initiated **Digital Empowerment campaign** through Social media as instructed by director to create awareness among citizens about various online government services offered by KSITM and other common services offered by key departments, awareness on digital payments and receipts, Cyber security awareness etc. Mainly Facebook platform was used for the same same. **Cdit** has been entrusted the responsibility to update the social media, mainly FB with creative inputs like creative posters, motion pictures, text messages and short videos etc. based on the contents provided and approved by ksitm. **eDistrict** services were given primary focus initially highlighting all certificate services and registration process which has proven successful with huge hit on the edistrict portal with significant number of transactions every day. **Cyber Security Awareness** and cyber crime

knowledge sharing & reporting aspects were also given due importance with awareness posters, highlighting important sections and guidelines etc. **State portal** was also promoted with details of services offered through **SSDG** highlighting one time registration and citizens feed back options, information services utility payments etc. **Public wifi(KFi)** facility available on 2000 hot spots with details of locations and steps to access the free wifi service at these hotspots were also highlighted. **Digital payments and receipts** were another area of focus which covered various online payment options like **Internet banking, BHIM, UPI, USSD** etc with detailed note in simple language to understand the common man. Akshaya awareness and aadhaar enrolment guidelines were also given due diligence along with **fake news spread** etc and related aspects. **Digilocker** was given primary focus with awareness videos and steps by step procedure to open the digilocker account and highlighting the benefits. **Government contact Center(GCC)** was highlighted with the various services offered with details of contact numbers to access the services offered by them. The likes and comments were improved considerably and timely reply was also given on comments and queries raised by citizens. **Mapathon Kerala Social Media campaign** was initiated through FB which aims at creating **awareness among citizens about open street mapping** and encourage the citizens and volunteers to participate at mapping process. The Campaign has proved successful and there were lot of enquiries in this regard through mails and telephonic calls which were clarified by the project team and through FB replies as well CDIT has developed a website for mapathon Kerala(www.mapathonkerala.in) which encompasses all details on mapathon followed by creative awareness videos and training tutorials. This has helped a lot in mapathon campaign to achieve its goals. CDIT has been updating the Facebook at regular intervals with creative inputs approved by KSITM based on the contents provided by IT Mission. Digital empowerment Campaign is still under progress with short videos prepared by Cdit on key common services offered by other departments like KSEB, KWA, ITR, Certificate services, utility payment services, Building tax, land tax etc. Apart from this, During **Covid 19** pandemic period, awareness initiatives by KSITM has also been supported by Cdit with posters, banners and short AVs, motion pictures etc. Break the chain Campaign, Covid Tracker, Kerala battles Covid portal, Internet bandwidth related awareness, Fake news awareness, government circulars and guidelines etc were also publicized by ksitm to reach out the common man and were also effectively supported by Cdit on a timely manner. Close to 20 lakh reach 400000 followers, and average of 35000 likes per posts approximately.

14. ICT enabled Flood relief Initiatives: KSITM



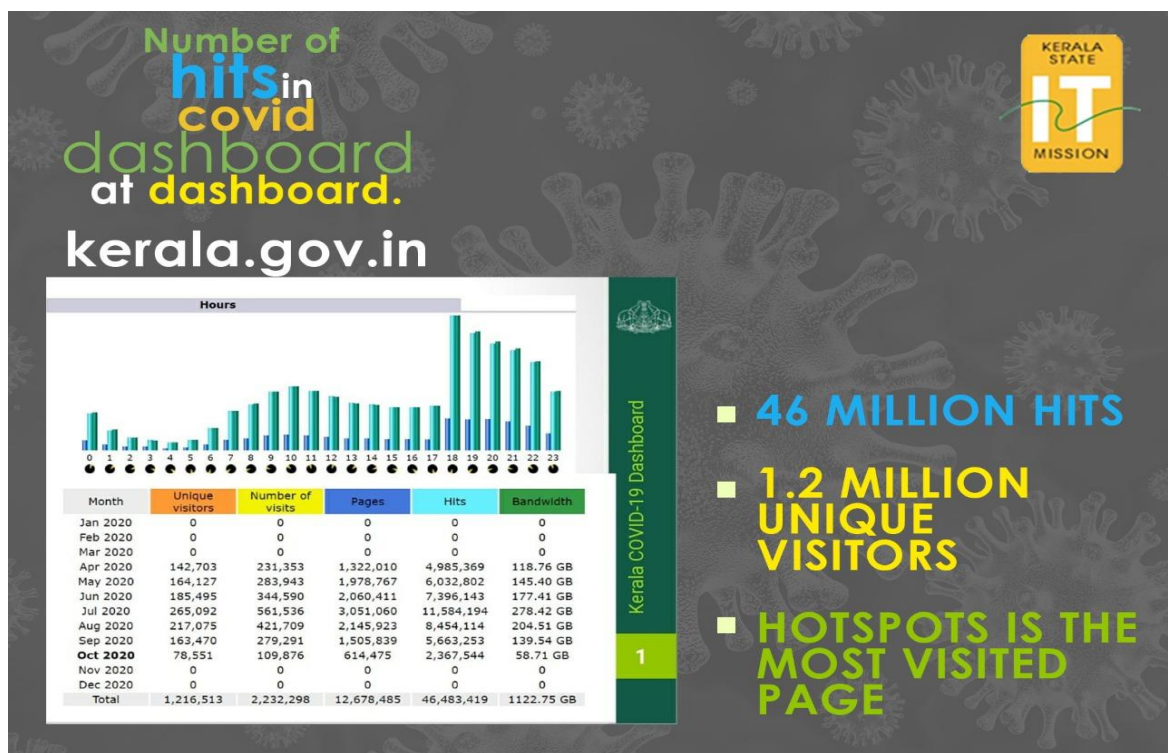
- Kerala has witnessed an unprecedented magnitude of flood in the history during the month of August 2018. We would like to highlight the ICT enabled platforms, which could support the rescue, relief, rehabilitation and rebuild phases of the disaster. Accordingly Kerala State IT Mission along with Government IT institutions, Private organizations and start-ups, initiated many different activities to support the government to overcome this chaotic situation & to safeguard the lives of citizens of the state.
- Meeting of Volunteers of **Keralarescue.in** : During the floods, a large number of volunteers from across the world created and managed a portal *keralarescue.in* which acted as a digital nerve centre for rescue operations by providing real time information regarding floods, rescue and relief requirement. A meeting of volunteers was held by ITD last week wherein the volunteers agreed to provide continued support to strengthen the information infrastructure by developing innovative solutions which could be of use in disaster situations
- **Conduct of Certificate Adalats** : These are single point centres where multiple certificates which were lost during the Floods were issued to citizens. The Certificates issued include Aadhaar Card, Ration Card, SSLC Book, Driving License & Permits, Caste Certificate, Chiak Card, land deeds etc. All these are also Aadhaar seeded and copied to Digilocker wherever appropriate. 29 adalath were conducted and a total of 6000 certificates issued to citizens by UIDAI team with IITMK and other departments.

15. The IT enablers effected during Covid 19



- 1) Covid tracker : For collecting data on isolation cases from PHCs in a way that dash boards are available at state and district levels.
- 2) Citizen center :Integrated on kerala.gov.in so that those who are vulnerable, those who are health workers at risk etc are able to report themselves. Facilities like telemedicine consultation made available for them.
- 3) Citizen center app : Where citizens can interact with government and avail various services like Chatbot and connect with volunteer. Geo surveillance module enabled.
- 4) Home visit app: For the home visit teams from LSGIs/ health .
- 5) Essential service epass application: The police will issue epasses. Integrated on website of the police .
- 6) Breakcorona.in :To register suggestions from public on corona management
- 7) Food distribution app
- 8) Centralised repository for supply chain logistics
- 9)Data entry forms for LSGI
- 10)Epass/covid Jagratha
- 11) Maps showing the distribution of old age poulation all over Kerala
- 12) Digitized registers of aged citizens undergoing treatment for life style diseases/undergoing palliative care etc.
- 13) Government of Kerala Official dashboard for Covid-19 battle statistics

- District wise and date wise consolidated reports
- District wise and date wise Quarantine reports
- Lab test statistics
- Mapped Outbreak locations within a district
- Community kitchen statistics
- Destitute Rehabilitation statistics
- Details of Hotspots and containment zones
- District wise quarantine reports
- Links to CM donation portal, Volunteer registration, Vehicle pass etc
- More than 5 Cr hits on the page till date
- Volunteer Registration details
- More statistical data being updated daily
- Visit: <https://dashboard.kerala.gov.in>



16. Awards and Accolades

- elets-eIndia Transformation Summit 2020 Award under make in India Initiative ,has been conferred to KSITM for its Community Mapping project initiative –Mapathon and the significant progress made in the recent past. This Award of Excellence was presented during their online summit organized on July 2020.
- 23rd NCGE Award Kerala Government portal(www.kerala.gov.in) has been selected as the best portal among states under portal category. The 23rd National Conference

on e-Governance was held at Mumbai, Maharashtra on 7-8 February 2020. The portal was selected based on the survey done by National e-governance Service Delivery Assessment 2020.

- Governance Now Digital Transformation Awards -2019: Governance Now Digital Transformation Awards -2019 under the category Digital State- Kerala” shortlisted for the following projects from Kerala IT Mission: · K-Fi - digital infra · Kerala State Portal & M-Keralam Mobile App · Centralised Procurement rate Contract System - Kerala
- SKOCH Award 2019 : KSITM conferred with SKOCH-Order of Merit for the year 2019 for its prestigious e - procurement Project.
- Tech Sabaha 2018 : The award was for coordinating the flood damage assessment survey process under IKM. The 14 pillars of KSITM and Secretary, Director, DTOs, who worked together to make something out of nothing.
- Kerala has won the Digital India Awards 2019 under the State/Union Territory category. The award was conferred to Kerala for the set of exemplary initiatives carried out in the State for providing a comprehensive web and mobile based services seamlessly to its citizens. The seamless flow of electronic files facilitated through the implementation of Eoffice upto the grassroot level offices was also flagged.
- SKOCH AWARD 2018: Order of Merit was conferred to key KSITM initiatives CERT-K, Kerala Spatial data Infrastructure(KSDI), Akshaya and mKeralam.

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വാഴ്ചിക

(കെഎസ്ഐടിഎം-അക്ഷയ ആസ്ഥാന മന്ദിരം)

ശ്രീ. പിണറായി വിജയൻ
ബഹു.മുഖ്യമന്ത്രി

പട്ടം, തിരുവനന്തപുരം
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