

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

II. NAME OF CATEGORY-‘OUTSTANDING PERFORMANCE IN CITIZEN CENTRIC SERVICE DELIVERY’

1. Coverage – Geographical and Demographic:-

(i) Comprehensiveness of reach of delivery centres

The eKalyan Portal is accessed by registered users (citizens) for various transactions for the services offered under these schemes through Internet.

(ii) Number of delivery centres

The services of the Citizen Service Centers in each Taluka (administrative unit of 40-80 villages) and each town and also eGram facilities in each village were also utilized for the SJED eKalyan application. Every village and town in Gujarat is covered by eGram, CSC and ICT facilities are easily available to the beneficiaries at the local level.

(iii) Geographical

(a) National level – Number of State covered

1

(b) State/UT level- Number of District covered

26

(c) District level- Number of Blocks covered

N/A

Please give specific details:-

(iv) Demographic spread (percentage of population covered)

The **Social Justice and Empowerment Department (SJED)** is entrusted with empowering people belonging to the backward and underprivileged sections of society. The Department has been following a pro-active approach for effective implementation of various schemes for the protection and welfare of people belonging to vulnerable sections. Through its various Directorates and District Offices, it runs around 225+ schemes such as Scholarships, Loans, Incentives and Training for SC, SEBC, Developing Castes, Minorities, and physically challenged people and provides welfare services to nearly **70 percent of the population of Gujarat**.



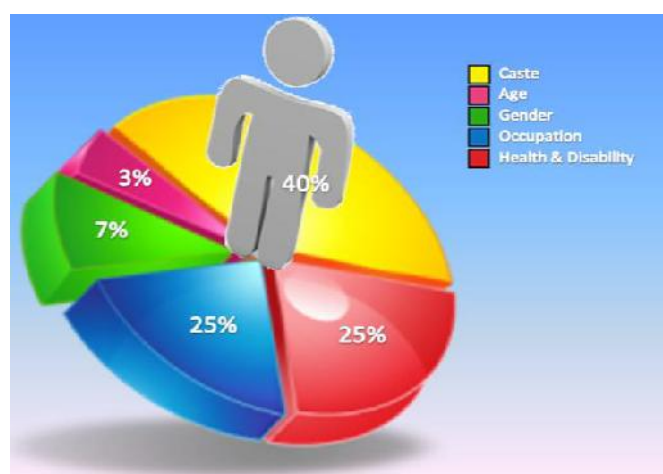
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Government of Gujarat's SJE Dept. focus is on the Economic development and Empowerment of persons belonging by covering Society's underprivileged sections as below:

- Scheduled Castes
- Developing Castes
- Socially and Economically Backward Classes
- Minority communities
- Children in need of care and protection/Children in conflict with law
- Physically and mentally challenged persons/persons with disabilities
- Protection and Welfare Schemes are also being implemented by this Department for the orphans, destitute persons, beggars and old aged persons.

The protection and welfare schemes being implemented by this Department can be mainly classified as under:

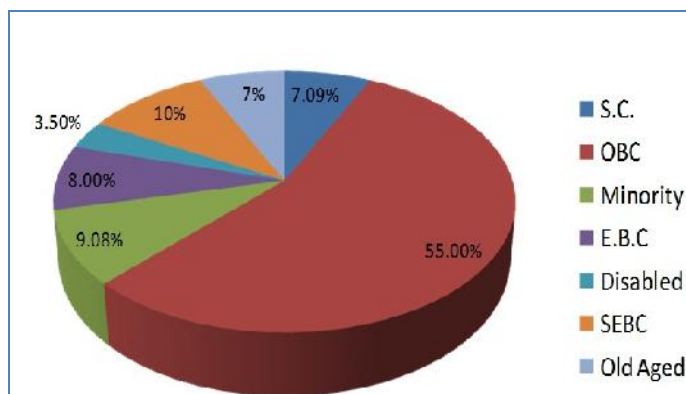
- Education
- Economic Welfare
- Health and Housing
- Social Protection/Defense
- Other schemes



The **eKalyan application** has enabled SJED to deliver all social welfare schemes of SJED at the door step of the beneficiaries. eKalyan is one of the biggest "Citizen to Government (C2G)" internet applications in India. Fortunately, in Gujarat, due to the presence of more than **13,000+ e-Gram centers** with good IT infrastructure, GSWAN (Gujarat State Wide Area Network) availability in district offices and the State Data Center (SDC), it has been possible to launch eKalyan on such a big scale.

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Below is the pictorial graph of citizens of the state is using the system for various schemes.



eKalyan has been implemented in Social Justice Department, HODs (Gandhinagar), Corporations (Gandhinagar), District Offices and Corporation offices.

Sr. No.	HODs
1	Directorate of Scheduled Caste Welfare (DSCW)
2	Directorate of Developing Caste Welfare (DDCW)
3	Directorate of Social Defense (DSD)
4	Gujarat Scheduled Caste Development Corporation (GSCDC)
5	Gujarat Backward Class Development Corporation (GBCDC)
6	Gujarat Safai Kamdar Vikas Nigam (GSKVN)
7	Gujarat Thakore & Koli Vikas Nigam (GT&KVN)
8	Gujarat Minority Finance & Development Corporation (GMFDC)
9	Gujarat Gopalak Vikas Nigam (GGVN)
10	Bechar Swamy Extremely Backward Scheduled Caste Corporation

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2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project):

The **Social Justice and Empowerment Department (SJED)** is entrusted with empowering people belonging to the backward and underprivileged sections of society. Through its various Directorates and District Offices, it runs 200+ schemes such as Scholarships, Loans, Incentives and Training for the marginalized sections of society and provides welfare services of various kinds to nearly **70 percent of the population of Gujarat**.

Government of Gujarat's SJE Department's focus is on the economic development and empowerment of persons belonging to society's underprivileged sections as listed below:

- Scheduled Castes (SC)
- Other Backward Classes(OBC)
- Socially and Economically Backward Classes(SEBC)
- Religious and Linguistic Minority Communities
- Children in Need of Care and Protection(CNCP)/Children in Conflict with Law(CCL)
- Physically and mentally challenged persons/Persons with Disabilities(PWD)
- Protection and Welfare Schemes are also being implemented by this Department for orphans, destitute persons, beggars and old aged persons.

Since a large number of schemes target individual beneficiaries as well as the marginalized communities, the department faces challenges such as:

- Lack of awareness of schemes among beneficiaries.
- Inadequate beneficiary participation due to lack of understanding of schemes.
- Managing and servicing huge volumes of applications and schemes through a manual process
- Lack of control over benefits delivery, resulting in fraud and misuse of schemes.
- Timely and optimum mobilization of the funds.

Major roadblocks in service delivery are as given below:

Manual Processing of Applications

The members of various under privileged sections of society faced challenges in travelling miles to the location of the different offices to avail the benefits of the welfare schemes. Moreover, multiple visits of the beneficiary to the offices were required which resulted in huge transaction cost. The transaction cost in term of

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travel and time was often a major proportion of the benefits realized by the underprivileged section of the society which reduced the participation in the schemes.

All the data involved paperwork right from application processing to disbursement of benefits; maintaining the departmental as well as beneficiary data; various registers, reports and papers were maintained for years. This voluminous paper-work made it difficult to retrieve the specific data and various reports as and when required resulting into lack of control, inordinate delays, and consequently poor services delivery to citizens.

Lack of process awareness among beneficiaries

In the absence of a centralized helpdesk, the beneficiaries had to collect the information regarding the benefits and other criteria for the schemes they wished to avail. There was no provision of a dedicated helpdesk where a beneficiary could go and ask about the schemes or any other information. As a result a lot of effort was required on the part of beneficiaries to get the information required to avail the benefits.

Lack of Transparency

Voluminous Paperwork resulted in lack of complete visibility of operations to the beneficiaries and also opacity at different level of supervision. This resulted in lack of control and transparency.

3. Scope of Service/ Activities Covered (Extent of e-enablement in terms of number of services, extent to which steps in each service have been ICT-enabled #)

3.1 Extent of e-enablement in terms of number of services

The **Social Justice and Empowerment Department (SJED)** is entrusted with empowering people belonging to the backward and underprivileged sections of society. The Department has been following a pro-active approach for effective implementation of various schemes for the protection and welfare of people belonging to vulnerable sections. Through its various Directorates and District Offices, it runs around 225+ schemes such as Scholarships, Loans, Incentives and Training for SC, SEBC, Developing Castes, Minorities, and physically challenged people and provides welfare services to nearly **70 percent of the population of Gujarat**.



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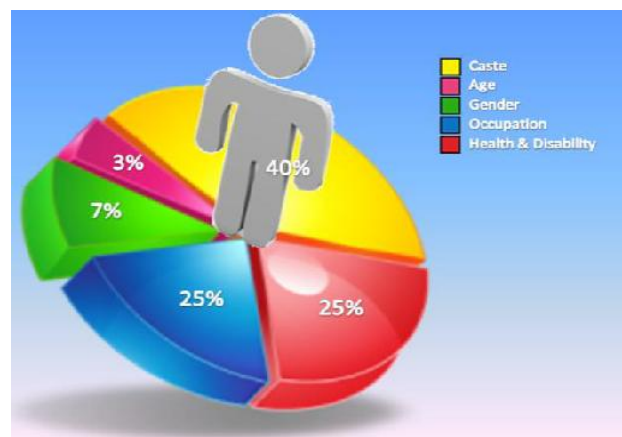
- Scheduled Castes
- Developing Castes
- Socially and Economically Backward Classes

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- Minority communities
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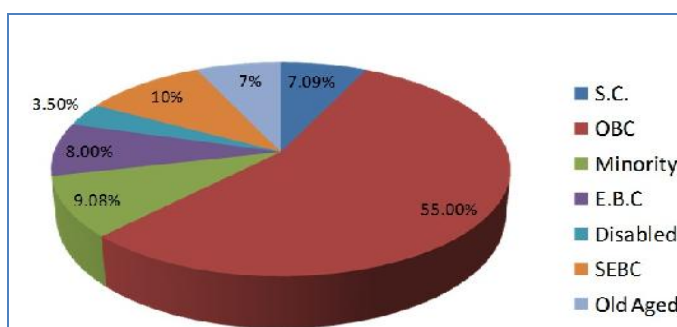
The protection and welfare schemes being implemented by this Department can be mainly classified as under:

- Education
- Economic Welfare
- Health and Housing
- Social Protection/Defense
- Other schemes



The **eKalyan application** has enabled SJED to deliver all social welfare schemes of SJED at the door step of the beneficiaries. eKalyan is one of the biggest “Citizen to Government (C2G)” internet applications in India. Fortunately, in Gujarat, due to the good IT infrastructure, GSWAN (Gujarat State Wide Area Network) availability in district offices and the State Data Center (SDC), it has been possible to launch eKalyan on such a big scale.

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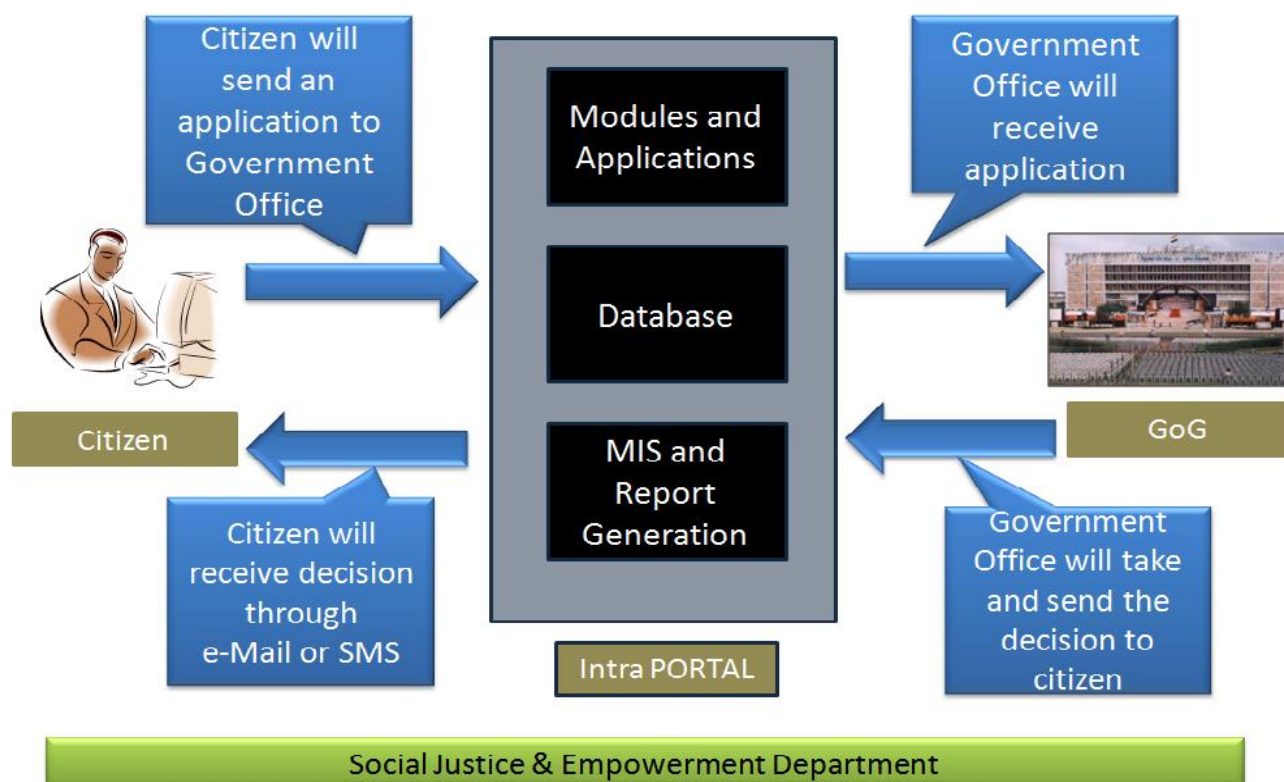
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3.2 Extent to which steps in each service have been ICT-enabled

The SJED is entrusted with the duty of empowering people belonging to the backward and underprivileged sections of society. The Department has been following a pro-active approach for effective implementation of various schemes for the protection and welfare of people belonging to vulnerable sections. Through its various Directorates and District Offices, it runs schemes such as Scholarships, Loans, and Incentives & Training for SC, SEBC, Developing Castes, Minorities, and physically challenged people and provides welfare services.

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C-2-G – A Portal Approach

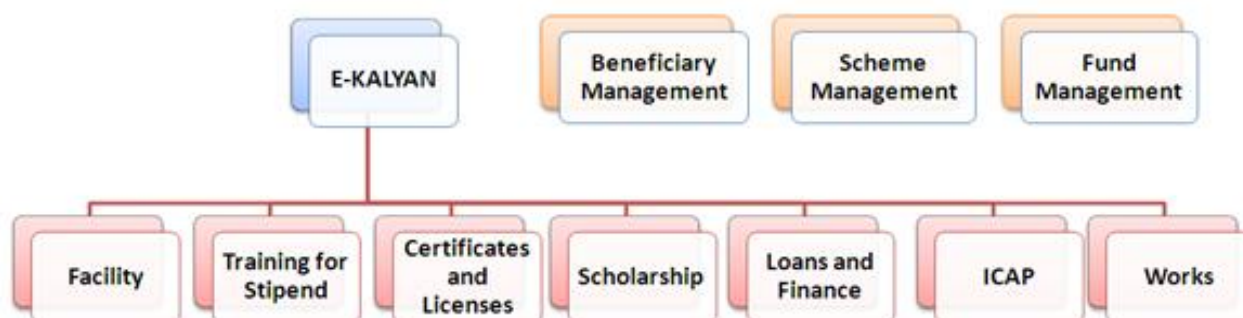


SJED took a comprehensive approach to implement e-Governance by developing a department portal with information about all its Directorates, Boards and Corporations. SJED has taken a holistic view and conceptualized an ambitious project of making all the schemes catered by its various offices online with an integrated Management Information System (MIS). SJED is aiming to create a comprehensive integrated database for all its Directorates and Corporations.

eKalyan aims at providing a composite solution to handle existing schemes as well as any new scheme with minimum efforts. Hence the solution should make SJED capable of implementing any new scheme in less time. The functionality of the eKalyan solution is mainly divided into 10 modules.

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Application Modules:



Sr. No.	Module Name	Details
1.	Facilities Management	<ul style="list-style-type: none"> Facility module is designed to manage the schemes in which the benefit is in form of kind. E.g. Book Bank, Hostel/Ashram etc. The organisations which are providing the facility receive the finance from the department. This Module is designed to manage the end to end approval to hand over process of non-cash benefits offered and expected to manage the applicant verification, seamless and expedited approval process and procurement of facilities. The module has the functions of Application Verification, Facilities Procurement and Facilities Hand Over.
2.	Training and Stipend	<ul style="list-style-type: none"> This module is designed to handle the schemes in which some kind of training is provided and while attending that training, beneficiary gets monthly stipend. The Compensations and Stipends Module manages the end to end approval to hand over process of cash allowances disbursed. This module manages the applicant verification, seamless and expedited approval process and disbursement of allowance.
3.	Certificate and Licenses	<ul style="list-style-type: none"> This module is designed to handle various schemes in which benefit is some kind of card or certificate and to manage the end to end

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		<p>approval to hand over process.</p> <ul style="list-style-type: none"> The module manages the applicant verification, seamless and expedited approval process. The module has the functions of Application Verification, Renewal Management, Genealogy Management.
4.	Scholarship	<ul style="list-style-type: none"> The Scholarship Management Module is designed to manage the schemes in which there is more than one beneficiary. E.g. In case of scholarship the student gets the maintenance allowance and the college gets the fees. The module expedites the process of scholarship approval culminating into accurate and definite disbursements to the identified beneficiaries. The module has the functions of Application Processing, Scholarship Calculation and Scholarship Disbursements.
5.	Loan and Finance	<ul style="list-style-type: none"> The Finance Module is designed to manage the end to end approval to disbursement to recovery of loan process, Admin Grants and Share Capital. This module covers all the schemes in which the money is given to beneficiary and the beneficiary returns the money, with decided interest rate, within specified duration. The module manages the applicant verification, expedited disbursement of loan and recovery management.
6.	ICAP (Incentive Compensation Award Pension)	<ul style="list-style-type: none"> ICAP module handles the schemes where after application is approved the money is disbursed to the beneficiary. This module is designed to manage the end to end approval to disbursement process. The module manages the various award and incentive schemes, candidate eligibility and felicitating management. The module has the functions of Candidate Processing, Award and Incentive Management, Felicitation Management.

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7.	Works Management	<ul style="list-style-type: none"> • This Module is designed to manage the end to end works undertaken by the Department. • The module manages the approval process for grants given out for development works and releases the disbursements in tranches. • This module maps the existing Construction of Hostels schemes.
8.	Beneficiary Management	<ul style="list-style-type: none"> • This module is designed to provide the department level beneficiary information to the higher authorities. • This module manages the applicant's data across different schemes serviced by the SJED. • The module depicts a single window view of the applicant as beneficiary of various benefits with respective period of validity. • The module has the functions of UID Compatible Beneficiary Profile, Beneficiary Benefit Details and Probable Duplicates Identification.
9.	Fund Management	<ul style="list-style-type: none"> • The Fund Management Module is designed to manage the fund related data in terms of managing the fund sources and utilization. • The module depicts a single window view of a fund flow for a particular scheme. • This module maps to the SJED requirement of having a integrated centralized database of funds.
10.	Scheme Management	<ul style="list-style-type: none"> • This module is designed to provide the department level Schemes related information to the higher authorities. • The module facilitates creation of scheme and enables its activation. • The module interfaces with Other Functional Modules and Fund Management Module

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4. **Stakeholder Consultation** (Give details about type of stakeholders consulted, number of stakeholders consulted, stages at which stakeholder input was sought, any user satisfaction study done etc. #)

4.1 Type of stakeholders consulted, 4.2 Number of stakeholders consulted,
4.3 Stages at which stakeholder input was sought:

At the conceptualization stage of the Project, department had consulted the Directorates, Corporations and District offices, Department of Science and Technology, Gujarat Informatics Ltd., Mastek Ltd. about the delivery of Citizen Centric Services to beneficiaries specifically with regard to saving of their cost and time. Study teams analyzed how eKalyan would streamline the SJED operations by improving efficiency and effectiveness as well as reducing costs significantly. District level officers were trained and the strategies and inputs received during the training programme have been incorporated in the applications. The Department Coordination Committee was formed to decide upon the services to be offered, simplified forms for different services and the work processes to be followed at various offices. Various NGOs, Hostels, Schools, Childcare Institution etc. aided by the department are involved in the processes of the relevant schemes.

Following subordinate offices of the Social Justice & Empowerment Department deliver the services through eKalyan.

- **Schemes implemented by following Directorate and Commissioner Offices are included.**

- Directorate of Scheduled Caste Welfare (DSCW)
- Directorate of Developing Caste Welfare (DDCW)
- Directorate of Social Defense (DSD)
- Commissioner for Disability
- Commission for Other Backward Classes

- **Schemes implemented by following Corporations are included.**

- Gujarat Scheduled Caste Development Corporation (GSCDC)
- Gujarat Safai Kamdar Vikas Nigam (GSKVN) [Sanitation Workers Development Corporation]
- Bechar Swami Ati Pachat Anusuchit Jati Vikas Corporation[Most Backward Scheduled Castes Development Corporation]
- Gujarat Backward Class Development Corporation (GBCDC)
- Gujarat Minorities Finance & Development Corporation (GMFDC)
- Gujarat Gopalak Vikas Nigam (GGVN) [Cattle Herders Development Corporation]
- Gujarat Thakore & Koli Vikas Nigam (GT&KVN) [Thakor and Koli Castes Development Corporation]

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4.4 Details of user satisfaction study done

- eKalyan (i.e. e-Welfare), Proven Flexible Framework: The Secretary, SJED and other officials realized that the Paperwork and Manual Processes were the main areas of concern. DeitY(Department of Electronics and Information Technology), Gol had already identified this problem in various government departments engaged with providing Services to citizens and initiated more than 30 e-Governance Mission Mode Programmes (MMPs) through NeGP. Accordingly, the SJED decided to resolve these issues through e-Governance and awarded the task to the selected SI (System Integrator) for implementing the flexible eKalyan (e-Welfare) Framework through competitive bidding after evaluating its fitness for re-engineering SJED processes on the five imperative parameters of Economy, Efficiency, Security, Mobility/ Accessibility and Accountability.
- Efficiency: End-to-end integrated eKalyan framework allows any welfare scheme to be defined and operationalized very easily. All other transactions from enrolment to MIS and auditing can be easily processed correctly, securely and expeditiously irrespective of the volumes and variety of schemes. This would have been next to impossible with manual paper-based procedures.
- Mobility/ Accessibility: Some of the terminal functions such as alerts, status reporting, inspection and queries are made available on Mobile improving the effectiveness significantly and making such services to the beneficiaries while they are on the move.
- Accountability: The Workflow, rule engine and the robust security features ensure the adherence to the processes and pre-defined responsibilities. This coupled with escalation alerts, MIS and Dashboards make all operations totally transparent. These features along with the Audit Trails would improve accountability among officers responsible for service delivery.
- Responsiveness/ Timeliness: The Efficiency, Mobility and Accountability related features described above essentially contribute to the Responsiveness. N-tier Architecture, Modular Design, Real Time updates, adequate Infrastructure along with SMS, e-mail and IVR integrations makes eKalyan Responsive. The status updates to beneficiaries helped in timely disbursement of the benefits which has in turn raised the image of public service and enhanced trust in the Government.
- Transparency: Transparency relates to bringing in complete visibility of operations at different levels of supervision and also to the beneficiaries by providing information or case status through implementation of ICT. This is achieved through the Accountability and Responsiveness processes described above.

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5. Strategy Adopted

(i) The details of base line study done,

The major obstacle in the implementation of the project was building up of user confidence and participation. One of the issues discovered during the implementation of the project was that for a large number of schemes especially educational scholarships and housing schemes, the applications were not processed individually at the initial stage and the approval process was collective in nature. A large number of beneficiaries would be listed out in one proposal based on their community status and the scheme wise requirement of data. These previously existing hybrid computerized formats required to be integrated into eKalyan and the process was successfully carried out. Another major issue was the integration of different computer based modes of payment linked to the Direct Benefit Transfer (DBT) scheme of the Government of India (GOI). The different scholarship and direct assistance schemes of the GOI had different procedural methodologies and different authorization patterns. eKalyan was suitably modified to incorporate these different types of transfer payments to beneficiaries and to include them in the eKalyan project.

(ii) Problems identified,

Certain obstacles encountered during implementation of the system and their resolutions are mentioned as below:

- Issue: Reluctance of the staff due to 'keyboard' syndrome.
- Resolution: Repeated self-training exercises and constant monitoring by the seniors.
- Issue: Initial difficulties in setting up Masters and defining the Schemes.
- Resolution: Close monitoring by the seniors and repeated self-training.

The principal obstacles in the implementation of the project as set out above were overcome successfully due to open architecture of the eKalyan project. As a result the benefit of ICT enabled expeditious implementation of the welfare schemes could be provided to the beneficiaries from the marginalized sections of the society.

(iii) Roll out/implementation model:

- Growing social pressure and the thrust for expeditious implementation of the inclusive Social Welfare initiatives had created huge volume of paperwork, very large number of outstanding applications. This motivated SJED to search for the alternatives using ICT.

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- SJED and GoG were aware of internal constraints for formulating and implementing such solution completely with GoG based human resources. Accordingly, it was decided to utilize competitive bidding for the project formulation and initialization.
- SJED thought of multifunctional programme development due to the large number of schemes targeted at different categories of beneficiaries and varied rules, regulations, eligibility criteria and also the task of delivering the services in the entire State with different levels of social/economic development and infrastructure facilities;
- Basically, the implementation plan was to carry out the services module wise; each module consisting of relevant schemes. It helped the department users giving them the control to process the applications with similar flow.

The priorities that were defined in implementing the 7 modules (remaining 3 modules are for administration configuration purposes) were:

Priority 1: Certificate and Licenses module

This module is designed to handle various schemes in which benefit is some kind of card or certificate and to manage the end to end approval to hand over process. Reason behind beginning implementation with this module was to start with non-financial schemes first and more importantly, the schemes under this module are for the basic Certificates required to avail of other schemes.

Priority 2: Loan and Finance module

The Finance Module is designed to manage the end to end process from approval to disbursement to recovery of loan, Administrative Grants and Share Capital. This module covers the schemes of all the corporations as well as some schemes are carried out by the different Directorates.

This module covers all the schemes in which money is given to beneficiaries and it is expected that the beneficiaries shall return the money, with decided interest rate, within a specified duration.

Priority 3: ICAP (Incentive, Compensation, Awards, Pension)

ICAP module will handle the schemes where application approval is followed by the disbursement of money to the beneficiaries. This module is designed to manage the end to end approval to disbursement process.

Priority 4: Training and Stipend

This module is designed to handle the schemes in which some kind of training is provided and while attending that training, beneficiaries get regular stipend. The Compensations and Stipends Module manages the end to end process of approval to disbursement of allowances. This module manages the applicant verification, expedites the approval process and disbursement of allowance.

Priority 5: Scholarship Management

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The Scholarship Management Module is designed to manage the schemes in which there is more than one beneficiary. E.g. In case of scholarship the student gets the maintenance allowance and the college gets the fees/freeship amount.

Priority 6: Facility Management

Facility module is designed to manage the schemes in which the benefit is in form of kind. E.g. Book Bank, Hostel/Accommodation etc. The organizations which are providing the facilities receive the finances from the department.

This Module is designed to manage the end to end process from approval to hand over of non-cash benefits and manages the verification of details about the procurement of facilities in the aided institution.

Priority 7: Works Management

This Module is designed to manage the end to end supervision and management of works undertaken by the Department.

The module manages the approval process for grants given for the development works like construction of hostels and other facilities and to release the disbursements in tranches according to the stage of implementation.

(iv) Communication and dissemination strategy and approach used.

- Provision of a dedicated helpdesk and feedback mechanism has made it possible for beneficiaries to gain knowledge about the schemes or any other information, resolve their queries and communicate their suggestions.
- Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.
- News updates on homepage is regularly updated for all users.

6. Technology Platform used-

(i) Description

Database on which the initiative is based	SQL Server 2012
Operating System on which the database mounted	Windows Server 2012
web-server	IIS8

(ii) Interoperability

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The solution is developed with an integration/service layer, enabling the integration between eKalyan and external systems. The benefits of using this layer are:

1. Eliminate tight coupling between eKalyan and external applications.
2. Standard protocols / formats based communication between eKalyan and external applications.
3. Potential opportunity to reuse existing logic / to reduce effort.
4. Easier maintenance due to an identified layer that facilitates all communication.
5. Usage of Microsoft Enterprise Library 5.0 to address cross cutting concerns.
6. Facilitate swapping or mixing of UI technology (ASP.Net, WPF, Silver Light, or Win forms).
7. Extensible and maintainable framework; most of the vital and generic behavior is present in base classes.
8. Scalable deployment options.

(iii) Security concerns

eKalyan Framework includes adequate and elaborate security features. This is generally attained through role based access mechanism, login password, encryption of data, etc.

Security audit of the website was done by a third party certified by CERT-In. Security clearance note was issued certifying that the web application is secure from the vulnerabilities.

(iv) Any issue with the technology used N/A

(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

SLA and other penalties are been defined in the Project contract agreement. All the stakeholders involved with the project adhere to the SLA.

7. **Citizen centricity and relevance** (Give details about impact on effort and time invested by user, Feedback Mechanism, Audit trails, Interactive Platform for service delivery, need gap fulfillment etc. #)

7.1 Details about impact on effort and time invested by user

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The various sections faced challenges in travelling miles to the location of the office to get the benefit. There were multiple visits of the beneficiary to the offices which sometimes incurred travel cost same as the benefit amount. Also, the time consuming manual processing of applications led to delayed benefit disbursement. eKalyan has made the services accessible as near as possible to their door step by making online 200+ schemes catered by the various HODs/ Boards / Corporations. Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.

Timely disbursement of services has been possible due to faster processing of applications than in manual processing. Funds are mobilized timely which has raised the image of public service and enhanced trust in Government significantly.

Application being user-friendly reduces time and efforts invested by users. Also, the department has envisaged a scenario where the person wanting any service would visit the CSC/eGram or the Panchayat office which would be within walking distance from their home and also can apply for the service online. eKalyan also has a grievance system to address user queries and issues to provide timely support to its users. Below are the summarized outputs which are successful

- Made the services accessible as near as possible to their door step by making online 200+ schemes implemented by the various HODs/ Boards / Corporations.
- Made the services affordable by notifying them about the status of their application and reducing the number of visits of the beneficiaries to the office; hence reducing their travel cost.
- Made the services available in time by faster processing of applications than in manual processing.

7.2 Feedback Mechanism

Provision of a dedicated helpdesk and feedback mechanism has made it possible for beneficiaries to gain knowledge about the schemes or any other information, resolve their queries and communicate their suggestions through email/phone.

7.3 Audit trails

The Workflow, rule engine and the robust security features ensure the adherence to the processes and pre-defined responsibilities. This coupled with escalation alerts, MIS and Dashboards make all operations totally transparent. These features along

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with the Audit Trails would improve accountability among officers responsible for service delivery.

7.4 Interactive Platform for service delivery

- Provision of a dedicated helpdesk and feedback mechanism has made it possible for beneficiaries to gain knowledge about the schemes or any other information, resolve their queries and communicate their suggestions.
- Bi-lingual interface has made it convenient for the beneficiaries to apply for the schemes through their choice of language.
- The eKalyan portal can be accessed by registered users (citizens) for various transactions for the services offered by the portal through Internet where adequate security features are implemented. This is generally attained through role based access mechanism, login password, encryption of data, workflow control etc.

7.5 Need gap fulfillment

Gujarat State Wide Area Network (GSWAN) is End to End IP based Multi Service Backbone (IT infrastructure) that supports Voice, Video, and Data on the same Bandwidth from State Capital Gandhinagar /Center to all 33 Districts, 225 Taluka Centers and eGram Centers at all village Panchayats (Village local bodies).

Sachivalaya Campus Area Network (SCAN), having 7000 Fast Ethernet Input / Output ports, connects all the Government offices and Government buildings / complexes in State capital on Gigabit backbone.

Web server, DNS server, Mail server and database servers have been installed at the State Data Center and have been integrated to the GSWAN / SCAN networks.

More than 3300 District / Taluka Government offices of 32 Government departments and semi government offices and the Citizen Service Centers at the Town and Taluka level have been connected with GSWAN. More than 13000 village panchayats are connected with the eGram network to the GSWAN system.

In order to gain the most out of the available infrastructure, the use of latest technologies was adopted which has significantly simplified the work, helped save administrative and beneficiary time which has been useful for other productive activities and has provided better output and beneficiary satisfaction than before.

eKalyan (e-Welfare) is a proven flexible framework platform; fulfilling the goals of the department to reach out to marginalized people for social welfare.

The overall experience of eKalyan has been very positive; however one of the lessons learnt is that ICT can not completely replace the human element in the implementation of the social sector schemes for the marginalized sections of society.

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Even though the ICT enabled eKalyan portal is available at the village level itself, a substantial number of beneficiaries also contact the offices delivering the social services as this also provides information, two way communication and a human face to the implementation process.

Face to face human interaction also reinforces the self-confidence of the beneficiaries belonging to the weaker sections as well as provides them with an assertion of their self-respect. The ICT enabled eKalyan serves as reference point and also the delivery mechanism for the majority of the schemes for the SJED. The eKalyan system provided expeditious standardized delivery mechanism for the various schemes of SJED and also incorporated the different DBT schemes of GOI. However it was learnt that the ICT solution can serve as a facilitator and in the foreseeable future, it may not replace completely the human interaction based delivery system.

8 User convenience (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

- eKalyan (e-Welfare) is a proven flexible framework platform; fulfilling the goals of the department to reach out to marginalized people for social welfare.
- The overall experience of eKalyan has been very positive; however one of the lessons learnt is that ICT can not completely replace the human element in the implementation of the social sector schemes for the marginalized sections of society. Even though the ICT enabled eKalyan portal is available at the village level itself, a substantial number of beneficiaries also contact the offices delivering the social services as this also provides information, two way communication and a human face to the implementation process.
- Face to face human interaction also reinforces the self-confidence of the beneficiaries belonging to the weaker sections as well as provides them with an assertion of their self-respect. The ICT enabled eKalyan serves as reference point and also the delivery mechanism for the majority of the schemes for the SJED. The eKalyan system provided expeditious standardized delivery mechanism for the various schemes of SJED and also incorporated the different DBT schemes of GOI.
- Provision of a dedicated helpdesk and feedback mechanism has made it possible for beneficiaries to gain knowledge about the schemes or any other information, resolve their queries and communicate their suggestions.
- Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.

(ii) Completeness of information provided to the users,

- Service delivery mechanism is made transparent with complete visibility of operations at all the levels of authorities and amongst public which has made it

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possible to eliminate the fraudulent duplication of beneficiaries; identification of the right beneficiary, and hence reduced injustice to the beneficiaries at any level.

(iii) Accessibility (Time Window),

- eKalyan has made the services to beneficiaries accessible as near as possible to their door step by making online 200+ schemes implemented by the various HODs/ Boards / Corporations.
- Some of the terminal functions such as alerts, status reporting, inspection and queries are made available on Mobile improving the effectiveness significantly and making such services to the beneficiaries while they are on the move.

(iv) Distance required to travel to Access Points

eKalyan application is accessed by approximately 500 officers using GSWAN provided by GoG. These users can also access eKalyan application via internet or broadband connectivity provided by GoG. Application being user-friendly reduces time and efforts invested by users. Also, the department has envisaged a scenario where the person willing to have any service would visit the CSC/eGram or the Panchayat office which would be within walking distance from their home and apply for the service online. eKalyan has implemented grievance system to address user queries and issues to provide timely support to its users.

(v) status tracking

Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.

9. Efficiency Enhancement (Give specific details about the following #)

(i) Volume of transactions processed

End-to-end processing of 100000+ applications till date is successfully accomplished.

(ii) Coping with transaction volume growth

System is capable of processing 18000+ concurrent users at a time and highly scalable servers are used to mitigate the transaction volume growth.

(iii) Time taken to process transactions

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High-end servers used so no constraint of time; shall depend on user connectivity.

(iv) Accuracy of output

All outputs are in form of benefits to the beneficiaries and comply with the GoG's GRs/policies. Hence, there are no gaps for inaccuracy.

(v) Number of delays in service delivery

Time duration limit as specified in the Citizen Charter is followed for completion of any application which varies from scheme to scheme, thus, delivering services on time.

SLA and other penalties are been defined in the Project contract agreement. All the stakeholders involved with the project adhere to the SLA.

10. Cost to User (Give details about impact on Service charge paid, travel cost, indirect cost incurred by the user etc. #)

The various sections faced challenges in travelling miles to the location of the office to get the benefit. There were multiple visits of the beneficiary to the offices which sometimes incurred travel cost same as the benefit amount. Also, the time consuming manual processing of applications led to delayed benefit disbursement. eKalyan has made the services accessible as near as possible to their door step by making online 200+ schemes catered by the various HODs/ Boards / Corporations. Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.

Timely disbursement of services has been possible due to faster processing of applications than in manual processing. Funds are mobilized timely which has raised the image of public service and enhanced trust in Government significantly.

Application being user-friendly reduces time and efforts invested by users. Also, the department has envisaged a scenario where the person wanting any service would visit the CSC/eGram or the Panchayat office which would be within walking distance from their home and also can apply for the service online. eKalyan also has a grievance system to address user queries and issues to provide timely support to its users. Below are the summarized outputs which are successful:

- Made the services accessible as near as possible to their door step by making online 200+ schemes implemented by the various HODs/ Boards / Corporations.

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- Made the services affordable by notifying them about the status of their application and reducing the number of visits of the beneficiaries to the office; hence reducing their travel cost.
- Made the services available in time by faster processing of applications than in manual processing.

11. **Citizen Charter** (Give details about present of citizen charter describing standard/ information on services and its adherence for service delivery etc.)

Time duration limit as specified in the Citizen Charter is followed for completion of any application which varies from scheme to scheme, thus, delivering services on time.

SLA and other penalties are been defined in the Project contract agreement. All the stakeholders involved with the project adhere to the SLA.

12. **Problem Resolution and Query Handling** (Give details about availability of help desk, query resolution mechanism, single window resolution, interactive interface etc. #)

- Provision of a dedicated helpdesk and feedback mechanism has made it possible for beneficiaries to gain knowledge about the schemes or any other information, resolve their queries and communicate their suggestions.
- Services have been made affordable to the beneficiaries by notifying them about the status of their application through SMS/email and reducing their number of visits to the office; hence reducing their travel cost.
- News updates on homepage is regularly updated for all users.

13. **Privacy & Security Policy** (Give details about security technique deployed, use of digital signatures, encryption etc. #)

- eKalyan Framework includes adequate and elaborate security features. This is generally attained through role based access mechanism, login password, encryption of data, etc.
- Security audit of the website was done by a third party certified by CERT-In. Security clearance note was issued certifying that the web application is secure from the vulnerabilities.

14. **Innovation** (Give details on extent to which the service is unique compared to other similar services, impact on number of steps required, identification and removal of bottlenecks/irrelevant steps etc.#)

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The eKalyan application has enabled SJED to deliver most social welfare schemes of SJED at the doorstep of the beneficiaries. Accordingly eKalyan an internet based application has leadto a considerable decrease in the service delivery time for all 200+ services delivered through eKalyan.

Some distinctive features/accomplishments of the project

- UID integration
- GIS integration
- SMS/email integration
- Scalable Server architecture
- Bank account ECS
- Framework based approach
- Fully Configurable System
- Door Step Service - CSC Centers/eGram/Panchayat offices
- Immediate/Timely Delivery
- Increased transparency
- Increased efficiency in service delivery
- Clear audit trail of the processes
- Paperless governance
- Decrease in duplication of beneficiaries
- Multi-lingual interface (localization)
- Proposed IVR system
- Choices of various themes and font size convenient to the user
- Various databases integrated in the system
- Several workshops have been conducted for building the capacity of the employees

15. **e-Inclusion** (Give details about impact on number of trips required, availability of local language interface, online submission of forms, accessibility for disabled people, length and breadth of services made available online etc.)

- The application being in local language as well makes possible for most beneficiaries to access. eKalyan is web based application developed using Indian Government Website guidelines.
- The website is disabled friendly in compliance with the World Wide Web Consortium (W3C) and Web Content Accessibility Guidelines (WCAG)

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Number of Services

Sr. No.	HODs	No. of Schemes (Approx)
1	Directorate of Scheduled Caste Welfare (DSCW)	75
2	Directorate of Developing Caste Welfare (DDCW)	102
3	Directorate of Social Defense (DSD)	17
4	Gujarat Scheduled Caste Development Corporation (GSCDC)	06
5	Gujarat Backward Class Development Corporation (GBCDC)	06
6	Gujarat Safai Kamdar Vikas Nigam (GSKVN)	08
7	Gujarat Thakore & Koli Vikas Nigam (GT&KVN)	06
8	Gujarat Minority Finance & Development Corporation (GMFDC)	04
9	Gujarat Gopalak Vikas Nigam (GGVN)	03
10	Bechar Swamy Extremely Backward Scheduled Caste Corporation	00
Total		227

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Users Capacity and Volumetric Information

Description	Volumetric
Total number of schemes rendered by eKalyan	225+
State statistics (Districts/Talukas/Panchayats/Cities)	# of Districts: 33 # of Talukas: 231 # of Panchayats /Cities: 82
Indicate customer using PCs at CSCs and Panchayat, probable number of PCs at CSCs and Panchayat. Any other activity happening on the PCs at these locations	There are 33 district offices and 12 HOD offices where there would be about 350 users.

The number of beneficiaries who are provided assistance or services by the departments in 2012-13 are as follows:

Directorate / Departments / HODs	# of beneficiary
Directorate of Developing Caste Welfare (DDCW)	1165980+
Directorate of Scheduled Caste Welfare (DSCW)	8129860+
Directorate of Social Defense	798187 +

User volumetric information:

Internal Users (Department)		
Department	Derived from # of offices and HOD offices.	900+
External Users (Online Applications)		
Online Application	Derived from # of beneficiary of the scholarship scheme.	18000

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Total Expected User base	Total of Internal and External users.	18900+
Concurrent Users	Concurrent users are estimated at 10% of Total Expected User Base.	1850

Access mode for all users

eKalyan application is being accessed by approximately **900+** officers using GSWAN provided by GoG. These users can also access eKalyan application via internet or broadband connectivity provided by GoG. The eKalyan portal is accessible by registered **18000+** users – Individual Citizens as well as Organizational Users for various transactions for the services offered by the portal through internet.

Manpower Trained

Several workshops have been conducted for building the capacity of the employees.

Following is the scope of the training program covered by Joint team of SJED Department, GIL and Mastek Ltd., to make all officers efficiently trained for eKalyan application.

- Background and Walkthrough of eKalyan application.
- Providing information about the 7 modules of the eKalyan application.
- Providing training on the different types of Users Registration.
- Training on the new processes to be adopted by the officers for maximum use of the eKalyan application.
- Training Videos to be provided on the eKalyan website for continuous training of the officers.
- **900+ officers** have been trained on the project in first phase.

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16. **Sustainability** (Give details about sustainability w.r.t. technology (technology use, user privacy, security of information shared-Digital Signature/Encryption etc. #), Organization (hiring trained staff, training etc. #), financial (Scope for revenue generation etc. #))

Sustainability of the application is based on:

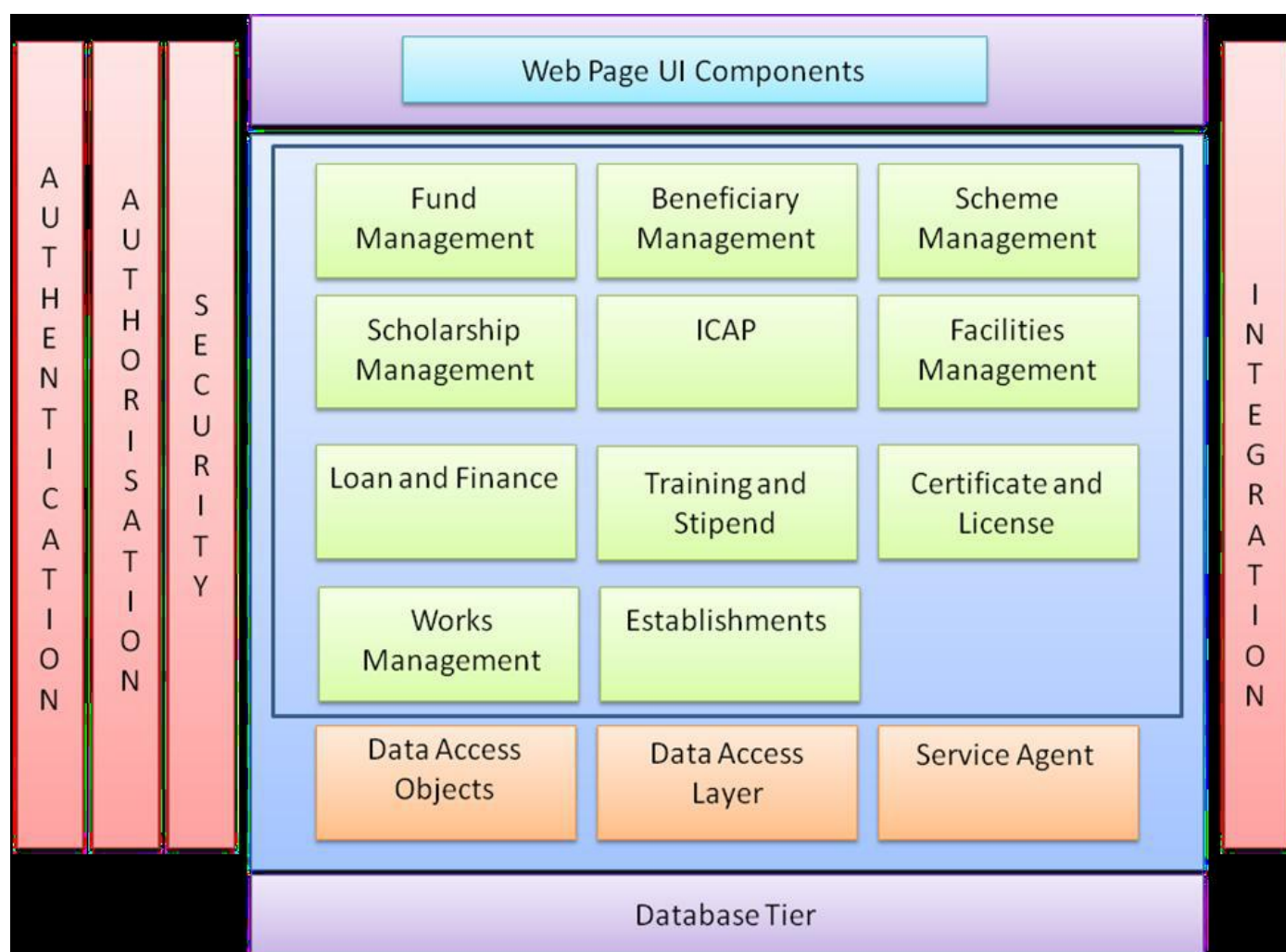
- The Implementing agency is providing 5 years Warranty and Maintenance Support.
- Minimal infrastructure and familiar and easy to use software fields for grass root workers.
- Involvement of regular staff.
- The time, cost and effort saved through the IT tool.
- One time feeding of the basic details and then just updating it through the regular field level work.
- The application is hosted at Gujarat State Data Center, highly secured and ISO certified centre.

Software Architecture (functional):

eKalyan solution is entirely developed using .Net stack (no third party software used), using open standards like XML and communication technology like WCF with the objective to promote interoperability and integration.

The e-Kalyan is developed with an integration/service layer, enabling the integration between e-Kalyan and external systems.

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The benefits of using this layer are:

- Reduced coupling between E-KALYAN and external applications.
- Standard protocols / formats based communication between E-KALYAN and external applications.
- Potential opportunity to reuse existing logic / to reduce effort.
- Easier maintenance due to an identified layer that facilitates all communication.
- Usage of Microsoft Enterprise Library 5.0 to address cross cutting concerns.
- Facilitate swapping or mixing of UI technology (ASP.Net, WPF, Silver Light, or Win forms).

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- Extensible and maintainable framework; most of the vital and generic behavior is present in base classes.
- Scalable deployment options.

17. **Number of users and services** (Give details about frequency of services used in last 6 months, number of visitors, number of unique visitors, number of users etc. #)

The **Social Justice and Empowerment Department (SJED)** is entrusted with empowering people belonging to the backward and underprivileged sections of society. The Department has been following a pro-active approach for effective implementation of various schemes for the protection and welfare of people belonging to vulnerable sections. Through its various Directorates and District Offices, it runs around 225+ schemes such as Scholarships, Loans, Incentives and Training for SC, SEBC, Developing Castes, Minorities, and physically challenged people and provides welfare services to nearly **70 percent of the population of Gujarat**.

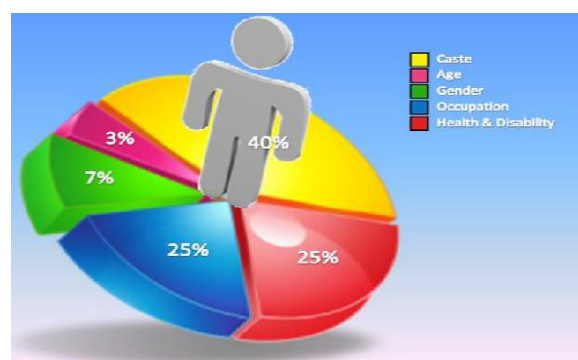


Government of Gujarat's SJE Dept. focus is on the Economic development and Empowerment of persons belonging by covering Society's underprivileged sections as below:

- Scheduled Castes
- Developing Castes
- Socially and Economically Backward Classes
- Minority communities
- Children in need of care and protection/Children in conflict with law
- Physically and mentally challenged persons/persons with disabilities
- Protection and Welfare Schemes are also being implemented by this Department for the orphans, destitute persons, beggars and old aged persons.

The protection and welfare schemes being implemented by this Department can be mainly classified as under:

- Education
- Economic Welfare
- Health and Housing
- Social Protection/Defense
- Other schemes



AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

18. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

(i) To organization

End-to-end integrated eKalyan framework allows any welfare scheme to be defined and operationalized very easily. All other transactions from enrolment to MIS and auditing can be easily processed correctly, securely and expeditiously irrespective of the volumes and variety of schemes. This would have been next to impossible with manual paper-based procedures.

(ii) To citizen

The eKalyan Portal is accessed by registered users (citizens) for various transactions for the services offered under these schemes through Internet. Consequently, visits of the beneficiaries to the SJED Offices are reduced saving time and costs significantly.

Some of the terminal functions such as alerts, status reporting, inspection and queries are made available on Mobile improving the effectiveness significantly and making such services to the beneficiaries while they are on the move.

(iii) Other stakeholders

The Workflow, rule engine and the robust security features ensure the adherence to the processes and pre-defined responsibilities. This coupled with escalation alerts, MIS and Dashboards make all operations totally transparent. These features along with the Audit Trails would improve accountability among officers responsible for service delivery.

The Efficiency, Mobility and Accountability related features described above essentially contribute to the Responsiveness. N-tier Architecture, Modular Design, Real Time updates, adequate Infrastructure along with SMS, e-mail and IVR integrations makes eKalyan Responsive. The status updates to beneficiaries helped in timely disbursement of the benefits which has in turn raised the image of public service and enhanced trust in the Government.

Transparency relates to bringing in complete visibility of operations at different levels of supervision and also to the beneficiaries by providing information or case status through implementation of ICT. This is achieved through the Accountability and Responsiveness processes described above.

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19. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e. G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

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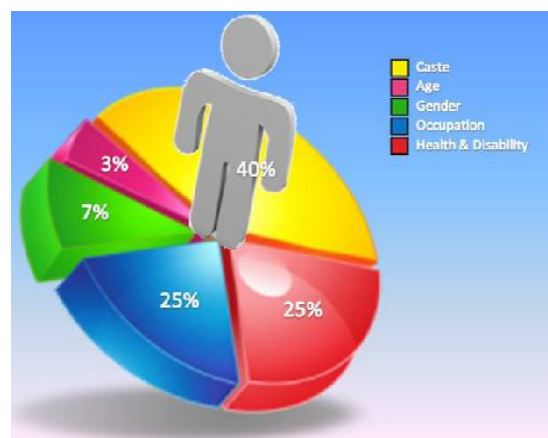


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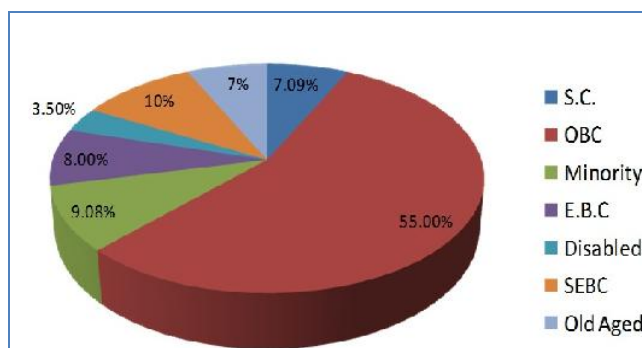
- Education
- Economic Welfare
- Health and Housing
- Social Protection/Defense
- Other schemes



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The **eKalyan application** has enabled SJED to deliver all social welfare schemes of SJED at the door step of the beneficiaries. eKalyan is one of the biggest “Citizen to Government (C2G)” internet applications in India. Fortunately, in Gujarat, due to the good IT infrastructure, GSWAN (Gujarat State Wide Area Network) availability in district offices and the State Data Center (SDC), it has been possible to launch eKalyan on such a big scale.

Below is the pictorial graph of citizens of the state is using the system for various schemes.



eKalyan has been implemented in Social Justice Department, HODs (Gandhinagar), Corporations (Gandhinagar), District Offices and Corporation offices.

Sr. No.	HODs
1	Directorate of Scheduled Caste Welfare (DSCW)
2	Directorate of Developing Caste Welfare (DDCW)
3	Directorate of Social Defense (DSD)
4	Gujarat Scheduled Caste Development Corporation (GSCDC)
5	Gujarat Backward Class Development Corporation (GBCDC)
6	Gujarat Safai Kamdar Vikas Nigam (GSKVN)
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10	Bechar Swamy Extremely Backward Scheduled Caste Corporation

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20. Adaptability Analysis

(i) Measures to ensure adaptability and scalability

The efficiency, effectiveness and speed of processing any and every valid request had already made the eKalyan indispensable to SJED. The initiative is being sustained through various statewide measures. Several workshops have been conducted for capacity building of the employees.

N Tier Architecture

The solution comprises of a multi-tier architecture with web-based clients. This promotes a clean separation of user interaction, core business logic, and data management. This also extends client/server computing to support application partitioning, more effectively develop and deploy application business logic and to manage the reliable execution in a network environment.

Component Based Architecture

The solution is built on the principles of component based architecture such as flexibility, adaptability, reusability, maintainability. The key benefits of this approach are:

1. **Loose Coupling:** Components integrate with other components without needing to know how other components are implemented.
2. **Flexibility:** Components can easily be replaced with other components (with the same interface).
3. A component can be invoked either synchronously or asynchronously as applicable.
4. **Increased productivity:** Easier to integrate components together to form a composite application.
5. All components have service based interface. Giving the flexibility of deploying and consuming it as a service.

Integration

The solution is developed with an integration/service layer, enabling the integration between eKalyan and external systems. The benefits of using this layer are:

9. Eliminate tight coupling between eKalyan and external applications.
10. Standard protocols / formats based communication between eKalyan and external applications.
11. Potential opportunity to reuse existing logic / to reduce effort.
12. Easier maintenance due to an identified layer that facilitates all communication.
13. Usage of Microsoft Enterprise Library 5.0 to address cross cutting concerns.

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14. Facilitate swapping or mixing of UI technology (ASP.Net, WPF, Silver Light, or Win forms).
15. Extensible and maintainable framework; most of the vital and generic behavior is present in base classes.
16. Scalable deployment options.

The Configuration Utility:

- In case there is a need to add/edit fund to the department, it is configurable to modify/add the same and can be recorded and released as and when required.
- The eKalyan is configurable to define various criteria relating to any new Scheme to be rolled out such as
 - Defining Rules
 - Defining Documents
 - Defining Declaration; and mapping it to the respective fund.
- The application is configurable for adding/editing Educational Course, Charges/Fee Structures which will be useful in the Scholarship, Facility as well as Training and Stipend modules.
- Role based approach
- Users, User Roles and Offices to which the Department users belong are configurable.
- Configuration access rights are available only when log in to the Configuration Utility is as an administrator.
- Beneficiary Reference Numbers can be assigned/modified using the configuration Utility which can be referenced later for Family members.

All these features make eKalyan sustainable in the dynamic and fast evolving scenario in the social sector.

(ii) Measures to ensure replicability

N Tier Architecture

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AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

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4. **Increased productivity:** Easier to integrate components together to form a composite application.
5. All components have service based interface. Giving the flexibility of deploying and consuming it as a service.

(iii) Restrictions, if any, in replication and or scalability
N/A

(iv) Risk Analysis

Certain obstacles encountered during implementation of the system and their resolutions are mentioned as below:

- Issue: Reluctance of the staff due to 'keyboard' syndrome.
- Resolution: Repeated self-training exercises and constant monitoring by the seniors.
- Issue: Initial difficulties in setting up Masters and defining the Schemes.
- Resolution: Close monitoring by the seniors and repeated self-training.
- However, the major obstacle in the implementation of the project was building up of user confidence and participation. One of the issues discovered during the implementation of the project was that for a large number of schemes especially educational scholarships and housing schemes, the applications were not processed individually at the initial stage and the approval process was collective in nature. A large number of beneficiaries would be listed out in one proposal based on their community status and the scheme wise requirement of data. These previously existing hybrid computerized formats required to be integrated into eKalyan and the process was successfully carried out. Another major issue was the integration of different computer based modes of payment linked to the Direct Benefit Transfer (DBT) scheme of the Government of India (GOI). The different scholarship and direct assistance schemes of the GOI had different procedural methodologies and different authorization patterns. eKalyan was suitably modified to incorporate

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

these different types of transfer payments to beneficiaries and to include them in the eKalyan project.

- The principal obstacles in the implementation of the project as set out above were overcome successfully due to open architecture of the eKalyan project. As a result the benefit of ICT enabled expeditious implementation of the welfare schemes could be provided to the beneficiaries from the marginalized sections of the society.

21. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, change in legal system, rules and regulations

Every form was standardized to include: Name & Number of the issue of service, description of service, name of the concerned office and concerned officer, time-limit for processing, list of requisite enclosures, self certification checklist to ensure submission of only completed applications. The formats for all the standard appendices or declarations were included with the form. The procedures for handling the applications were also standardized to minimize subjectivity. Only those applications which were completed in all aspects were accepted. After acceptance, there were no queries and delays.

Citizen centricity and relevance

Application being user-friendly reduces time and efforts invested by users. Also, the department has envisaged a scenario where the person wanting any service would visit the CSC/eGram or the Panchayat office which would be within walking distance from their home and also can apply for the service online. eKalyan also has a grievance system to address user queries and issues to provide timely support to its users. Below are the summarized outputs which are successful

- Made the services accessible as near as possible to their door step by making online 200+ schemes implemented by the various HODs/ Boards / Corporations.
- Made the services affordable by notifying them about the status of their application and reducing the number of visits of the beneficiaries to the office; hence reducing their travel cost.
- Made the services available in time by faster processing of applications than in manual processing.
- Made the service delivery mechanism transparent at all the levels of authorities.
- Made the services more and more efficient in terms of its value

Since a large number of schemes target individual beneficiaries; the department faced some critical challenges which are overcome to quite an extent:

- Identification of the right beneficiary has been possible due to the transparency in the system

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

- It has been possible to reach out to the people and make them aware about the schemes and hence make them apply for the scheme.
- Management of huge volumes of applications and schemes has been done easily and accurately. As no intermediary is involved, it had no scope of corruption ensuring the pleasant experience for the beneficiaries.

Funds are mobilized timely which has raised the image of public service and enhanced trust in government to quite an extent.

22. Other distinctive features/ accomplishments of the project:

The eKalyan application has enabled SJED to deliver most social welfare schemes of SJED at the doorstep of the beneficiaries. Accordingly eKalyan an internet based application has lead to a considerable decrease in the service delivery time for all 200+ services delivered through eKalyan.

Some distinctive features/accomplishments of the project

1. UID integration
2. GIS integration
3. SMS/email integration
4. Scalable Server architecture
5. Bank account ECS
6. Framework based approach
7. Fully Configurable System
8. Door Step Service - CSC Centers/eGram/Panchayat offices
9. Immediate/Timely Delivery
10. Increased transparency
11. Increased efficiency in service delivery
12. Clear audit trail of the processes
13. Paperless governance
14. Decrease in duplication of beneficiaries
15. Multi-lingual interface (localization)
16. Proposed IVR system
17. Choices of various themes and font size convenient to the user
18. Various databases integrated in the system
19. Several workshops have been conducted for building the capacity of the employees