

# Integrated ShalaDarpan

## Decision Support System for Schools Monitoring & Management

Edited by **SARBJEET SINGH**

**ShalaDarpan is a unique idea to provide an end-to-end solution to the Education department for effective monitoring and management of all Government Schools. System facilitates decision support, Planning (School Open/ Upgrade/ Merge/ Close), School operations (Admissions, Promotions, and Results) along with Staff Management (Recruitment, Posting, and Relieving) and proper implementation of Beneficiary Schemes.**



**Tarun Toshniwal**  
Dy. Director General  
& SIO  
tarun.toshniwal@nic.in



**Vinod Kumar Jain**  
Sr. Technical Director  
vinod.jain@nic.in



**Animesh Pant**  
Scientist - C  
animesh.pant@nic.in



**Rajendra Singh Bidawat**  
Scientist - B  
rs.bidawat@nic.in

ShalaDarpan is an excellent system developed for the Education Department, Rajasthan, covering online records of all students, teachers and staff of government schools. System is used by students, teachers, staff and higher managements for their day to day working. System reaches up to village level for the services like daily attendance, Staff selection, Joining/ Relieving of staff, Class wise academic records, Result preparations, School Infrastructure status and Enrollment status in about 65,000+ government schools of Rajasthan. It is also being used as a real time system for state level Planning, Decision support and schemes/ programs implementation. System covers online information of 80+ Lakhs Students, 4.6+ Lakhs Teachers/ Staff details of all types of Government Schools in the state.

ShalaDarpan is widely appreciated by various state governments as well as the Secretary MHRD, Government of India - most critically because of its ability to largely eradicate offline data processes and redundancy in data collection efforts. 20+ states visited Rajasthan to study the System. ShalaDarpan has received many national/ State level awards, viz. CSI SIG e-Governance Award-2019, State e-Governance Award-2018 and SKOCH Order-of-Merit Certificate-2018.

### About

The focus of designing the system is "What Government Needs". Agile development and implementation was carried out in a phased database-to-decision approach wherein all critical databases related to students, staff and schools were built and reports were designed and released to take data-driven decisions. Looking at the impact of Integrated ShalaDarpan in terms of availability of data, prevention of data redundancy, sharp and swift two-way communication across the state education machinery, and coverage of almost all the areas of School's Management, the system has become a vital need for district/ state level offices.

This centralized data supports the department to face significant challenges such as pupil-teacher ratio, absenteeism, vacancies, low enrollment, inadequate infrastructure, budget requirements etc. School, district and state staff have become more accountable because it is extremely simple to figure out the bottleneck in any implementation.

Analytical reports are available at schools using which lists of possible dropout children are seen so that schools can take necessary action to retain the children in mainstream thus minimizing the dropout numbers. In short, ShalaDarpan has now become a unique, centralized tool integral to the Education Department which is steadily driving Rajasthan

towards the Digital Age.

### Salient Features

- Bilingual, workflow based user friendly system
- Covers all government Schools under various managements such as the School Education department, Sanskrit education, Social justice, Madarsa, TADA schools etc.
- Transactional information of Staff/ Students maintained
- Availability of Dashboard for every school
- Reliable tool for department to quickly fetch the information for Assembly/ Court/ RTI queries
- Staffing pattern generation based on School Category/ Enrolment etc.
- Live vacancies against the Sanctioned Post and their posting through Counselling Process
- Daily attendance of Staff & Leave Management
- Communication (Web/ SMS/ Email) from Hq. to School/ Staff on various events
- Schools linked through Help & Support Module for their day to day issues
- Result Preparation, Sessional Marks Calculation, Green Sheet & Mark sheet Printing
- Work Progress/ Monitoring Reports
- Used for all beneficiary services viz. Scholarship, Free Textbook distribution, Laptops, Cycle distribution, Transport voucher etc.
- Developed using UDISE code which is a standard for School Education sector to help develop full-fledged customizable product for use by any state
- NIC Chat Intelligence (NICCI) Chatbot for users assistance

### Technologies Used

**Languages & Technology:** Asp.Net/C#, JQuery, Bootstrap Design Pattern

**RDBMS:** SQL Server 2019 and Non Relational DB-Mongo for document storing

### Important Integration

- Aadhaar
- Jan Aadhaar
- eGRAS Payment Gateway
- SMS and email relay services
- About 80,000+ eMitra Kiosks
- Jan Soochna Portal

STUDENT	SCHOOL/ STAFF	STAFF WINDOW	BENEFICIARY SCHEMES	ACADEMIC PERFORMANCE	CITIZEN WINDOW	SCHOOL MANAGEMENT
Admission (New/ Transfer)	Open/ Close/ Merge School	Profile View & Update	Scholarship: Apply & Track	Class 1-5 - SIQE, SA Wise Mark-Sheet	Talk to Teacher	Staff Selection and Posting Posting through Counseling KGBV Hostels
Detail Profile	Profile Infrastructure & Facilities	Apply & Track for : ACP, Pay Fixation, Foreign Tour, Teacher Award, Selection Interviews, Transfer, Leave etc.	Cycle/ Laptop Distribution	Class 6, 7, 9 & 11 - Term wise Marks Entry, Green-Sheet Preparation and Mark-Sheet	Study Material	Vocational Education
Section Allotment/ Update	SMC & SDMC Details	Report Grievance & Track	Free Text Book/ Work Book Distribution	Teacher Result Mapping	(eBooks, PDF & Videos Tutorials)	Budget Demand & Transfer Teacher Trainee' Internship
Faculty / Subject Mapping	Funds Receipt/Expenditure	Search Staff / Student / Schools	Transport Voucher Distribution	Class 8, 10 & 12 - Termwise Marks Entry, Sessional Marks and Board Result Mapping	NAS Preparation Material	School Star Rating based on Result Info
Roll No. Allotment	Faculty/Subject/Third Language	Vacancy in Schools	NMMS (Merit Cum Means)	Result Outcome/ Analytical Reports	SMILE (Teaching through WhatsApp)	Online MPR
SR Register	Sanction/Working Posts	TAF-Teacher Appraisal	Gargi / Balika Protshahan Award	Result Rules & FAQs	Question Bank	Monthly Block/ District Ranking
Transfer Certificate / NSO	Staff Joining, Reliving & Exit	Manyta Inspection	Mukhyamantri Humari Beti Yojana	View Results	School Search	Board Exam Form Filling
NSO Student	Staff Profile Update/ Approval	FAQ's and User Manual	Mid Day Meal	Submit Suggestions	Eligible Schemes	5th & 8Th Board Exam-ERP
Re-Admission	Class/Subject Teacher mapping	Various Schedules		View Reports	View Results	Help Centre Support -Data Updation, Resolution of issues receive from Schools online, Unlock Modules, Password Support, etc.
Attendance	Staff Attendance & Leave Approval	Civil Inspection			View Reports	
OoSC & Mainstreaming	PTM, School Safety	School Visit/Inspection				
Remedial Classes	Dash Board, View Circular/Orders					
Character Certificate	ICT in Schools					
Study Certificate	Addl. Responsibility Mapping					
Vidhyarthi Durghatana Bima	Anganwari (Pre Primary) Integration					
	Dynamic Website					
	Alumni Details					
	Work Arrangement and Deputation					

# Integrated ShalaDarpan Core Module

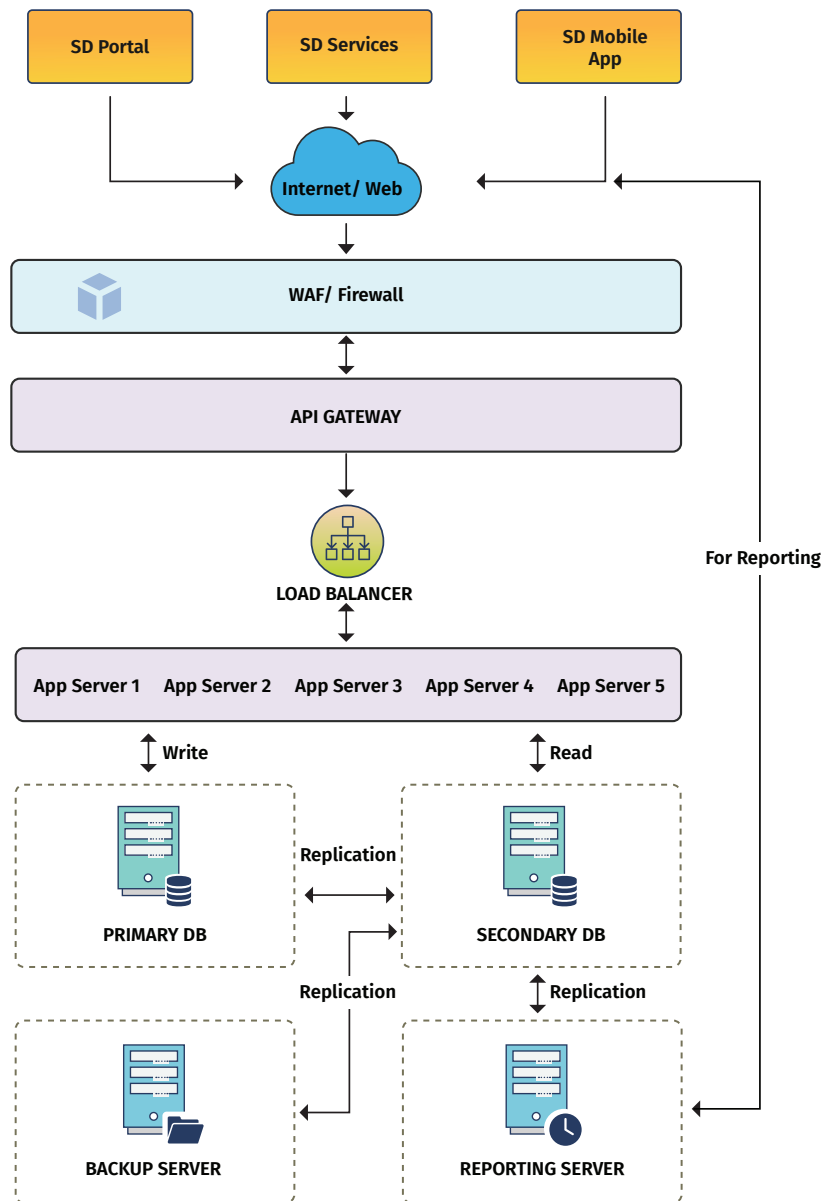
## Important Initiatives

**GyanSankalp:** Online platform to mobilize CSR funding, donations and voluntary contributions for the development of Government Schools by displaying infrastructure & other gaps based on

the data available in ShalaDarpan. For the ease of decision making, various pre-packaged donation options made available for citizens. Funds are being transferred in SMC/ SDMC account online through payment gateway. Physical & Financial Progress are

being also monitored to display to the Donor, along with final UC. Donor may propose/ create a project to support any number of selected schools. Funds are directly transferred into school's bank account, received under Donate to a school category.

## Deployment Architecture ▼



**Staff Joining/ Relieving:** New and existing staff may only join or be relieved from school if processed for various options like transfer, promotion, APO, suspension, deputation, retirement etc. Joining feature is broadened by incorporating it.

**School Allotment for Internship:** Module helps Teacher Trainee with filling choices filling and school allotment for Internship, which is required for various courses Diploma in Elementary Education (D. EL. Ed), Bachelor of Education (B. Ed) etc.

**Automated Scholarship:** Module for end-to-end solution from application to disbursement of Scholarship and based on eligibility criteria, Incharge select/ apply students for 11 types of Pre-Matric Scholarship using existing Student's data along with

various certificates needed for the allotment process. Scholarship amounts are transferred directly to the beneficiary's bank account, linked with Student's JanAadhaar. School/ Student may also track their Application status and payment disbursement.

**Star Rating & District Ranking:** Every school is provided Star rating using 8th, 10th & 12th Board results annually. Block/ District wise monthly rank is generated automatically on a certain cutoff date using 42 parameters data of the Portal. One can view any month Ranking report, drilled down to School level details.

**Staff Selection & District Allotment:** Under this workflow based module, selected candidates info is processed for Merit/ Selection list. District/ division

allotment is executed based on state reservation policy and choices filed by the candidate.

**5th/ 8th Board Automation:** End to end solution for exam related activities starting from Form Filling to Result Publication including Exam Centre Setup, Roll No. Allotment, Admit Card, Result data Capturing, Result Preparation, Mark Sheet printing etc. through all 33 DIET (District Institute of Education and Training) centers.

**Shala Samvad:** Unique tool designed to cater to the needs of students & Parents, helping them to provide info captured through ShalaDarpan like profile, Class/ Subject teacher details, exam result, applied scheme status etc. Feature is also provided to access NCERT (National Council of Educational Research and Training) Books, eContent, Video Lectures, Question Bank etc. Students may also ask any academic doubts and area wise subject teachers reply online.

### Impact

- Collection and automation process of information reduced multiple entry, redundancy and duplication of data
- Ensure Subject Teachers availability through rationalization of staff. Long Pending promotion process completed
- By identifying actual beneficiaries for various schemes like "Transport Voucher", "Free Text Book" "Laptop/ Cycle" etc. through ShalaDarpan, saving lot of government funds
- Staff window under ShalaDarpan provided relief to staff by providing online 24x7 channel to apply for various services which has created a positive environment among staff
- Save lot of money and manpower with quick redressal of issues by simplifying various activities through online processes
- Automation of various processes through ShalaDarpan saves lots in paper printing.

### Way forward

- Seniority List for Staff of School Education department
- Mobile Apps for School/ Office Users
- Teacher Diary, Time Table
- Staff Vigilance
- Co-curricular Activities Monitoring
- Online Transfer System
- Pay Fixation and Service Verification
- HRMIS with Pension Kulak
- Online Fund Transfer and Civil Works Monitoring
- Online Training Monitoring and Management
- PAB Plan Preparation, Execution and Monitoring

For further information, please contact:

**State Informatics Officer**  
 NIC Rajasthan State Centre  
 8318, NW Block, Govt. Secretariat, C-Scheme, Jaipur- 302006  
 Rajasthan  
 Email: sioraj@nic.in, Phone: 0141-2227992