

# Core Scope Document for School Education MMP



**Department of School Education & Literacy**  
Ministry of Human Resource Development, Government of India

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## 1. Background

### **School Education included as a MMP under NeGP**

School Education has been included as a Mission Mode Project (MMP) under the National e-Governance Plan (NeGP) by the Apex Committee for the NeGP. The MMP is focused on Primary, Secondary, and Higher Secondary education. A MMP by design has to cover a multitude of stakeholders in the ecosystem and arrive at a set of stakeholder centric services that have a measurable outcome/ impact over an agreed project timeframe.

### **School Education is a vast domain with a multitude of stakeholders and several flagship schemes under implementation**

In addition to the Department of School Education and Literacy and Department of Higher Education of Ministry of Human Resource Development (MHRD) at the Center and Education Department in the States, in a few States, Department for Backward Classes and Minorities and Department of Social Welfare also play a significant role in administration of hostels, schools, and disbursement of scholarships to students. There are several national (NUEPA, NCERT, CBSE, CIET, NCTE, NIOS, KVS, NVS) and state level agencies (SIEMAT, SCERT, SIET, DIET, State Examination Boards) within the education ecosystem that deal with School Education.

Several Schemes (Sarva Shiksha Abhiyan, Mid-Day Meal, Rashtriya Madhayamik Shiksha Abhiyan,...) are funded, either partially or fully by the Center and implemented by the State Governments / UTs. Schemes such as free text books for students, scholarships to socially and economically backward groups, residential schools for such disadvantageous groups are also funded and implemented by State Governments / UTs on their own.

There are also several ICT initiatives in Education that have been implemented both at the Center as well as States. NUEPA has implemented DISE and SEMIS to collect various statistical information from the schools. ICT @ Schools Scheme of MHRD is designed to provide opportunities to secondary stage students to develop ICT skills and also for ICT aided learning process. National Academic Depository (NAD) is an initiative of MHRD to maintain a national-level database of all academic qualifications from secondary school certificate to university and professional certificates. Several States including Kerala, Madhya Pradesh, Andhra Pradesh, Karnataka, and Gujarat have taken initiatives to implement ICT in the field of School Education. A National Policy on ICT in School Education has been recently finalized

by the MHRD to provide broad framework to guide and assist the States in optimizing the use of ICT holistically in school education.

### **Core Scope Document lays the foundation for the MMP**

In the context of School Education MMP, with its vast landscape, multitude of stakeholders, several flagship schemes and ICT initiatives under implementation, it is critical to establish the objectives, desired outcomes and identify the services for possible ICT interventions that will be the focus for the MMP. School Education MMP is classified as a State MMP, given the constitutional division of responsibilities between Centre and States. In order to successfully execute the scheme, it is important to identify the core services that will be delivered as part of the MMP in consultation with all the States / UTs.

A Core Scope Document outlining the objectives, desired outcomes, and the target set of services for the School Education MMP lays the foundation for the design and implementation of the MMP. The States / UTs take up the implementation of the MMP within the broad framework as envisaged in the core scope but as per the readiness and requirements at the State level.

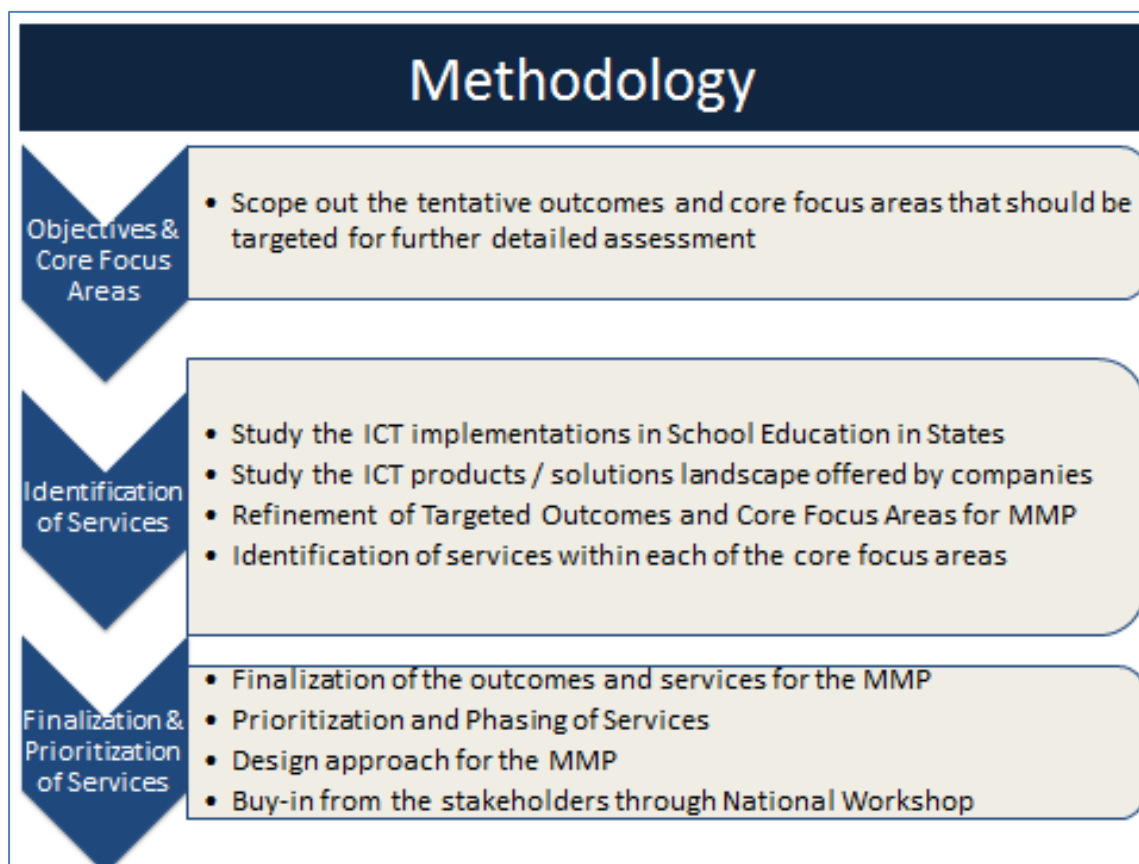
## **2. Methodology**

### **Objectives → Core Focus Areas → Target Services under MMP**

School Education being a vast domain, broad objectives and core focus areas to be targeted under the MMP were identified in the first step based on preliminary interactions with the stakeholders that included the first regional workshop in Hyderabad. Concept Note was prepared as an outcome of these preliminary interactions.

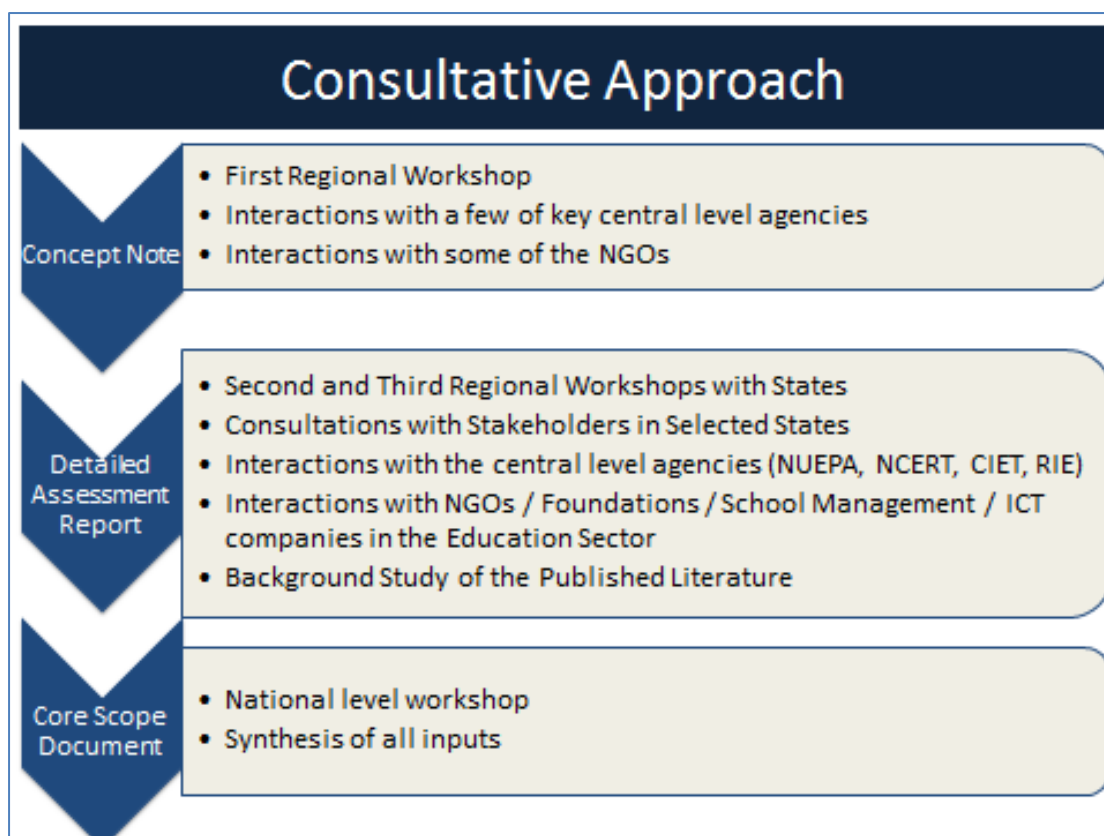
The objectives and core focus areas were refined and the potential services for the MMP within the core focus areas were scoped out based on subsequent interactions with the stakeholders in the assessment phase. This phase included the assessment conducted in three selected states, second and third regional workshops in Kolkata and Chandigarh and interactions with a few of the central agencies, NGOs and ICT solution providers in the field of education. An assessment report was prepared based on the interactions in this phase.

The objectives, core focus areas, and potential services were presented at the National Workshop in Delhi for validation prior to finalization of the Core Scope Document.



### Consultative Exercise with States / UTs and Central Agencies

School Education MMP has to be designed keeping in view the fact that Education is in the concurrent list in the Constitution, where States / UTs will take the responsibility for implementation. The design principle of centralized planning and decentralized implementation was adopted where conceptualization and design of the Core Scope was carried out by MHRD in consultation with all the States / UTs and other Stakeholders.



As part of the exercise to prepare the core scope document, three regional workshops were conducted with participation from all of the States / UTs and a few of the central agencies. The first workshop was conducted in Hyderabad, second in Kolkata and the third in Chandigarh. The workshops with participation from all levels of School Education department including Secretaries, Directors, SPDs, DEOs, Headmasters, and Teachers provided an opportunity to obtain raw thoughts and perceptions of administrators & educators on successes and challenges in School Education. The workshops aided in identifying the core focus areas and potential services to be targeted under the MMP. Summary of the proceedings and discussions in each of the workshops are captured as individual workshop reports.

## Regional workshops – Participation from all levels

- **Objective:**
  - Obtain raw thoughts and perceptions of administrators & educators on successes and challenges in School Education
  - Identification and refinement of 'Focus areas' and potential services for the MMP

Participation from all levels of School Education department: Secretaries, Directors, SPDs, DEOs, Headmasters, Teachers, Central agencies, NGOs etc.

### First Workshop Hyderabad 19<sup>th</sup> April 2012

- Andhra Pradesh
- Puducherry
- Goa
- Tamil Nadu
- Karnataka
- Lakshadweep (UT)
- Chhattisgarh
- Madhya Pradesh
- Akshara foundation

### Second Workshop Kolkata 24<sup>th</sup> May 2012

- West Bengal
- Odisha
- Jharkhand
- Sikkim
- Assam
- Nagaland
- Mizoram
- Manipur
- Tripura
- Meghalaya
- Andaman & Nicobar Islands

### Third Workshop Chandigarh 11<sup>th</sup> June 2012

- Punjab
- Haryana
- Delhi
- Himachal Pradesh
- Rajasthan
- Chandigarh
- Uttar Pradesh
- Bihar
- Uttarakhand
- Daman & Diu
- Dadra & Nagar Haveli

In addition to the workshops, assessment was carried out in three selected states i.e. Kerala, Gujarat and Bihar with an objective to capture insights from the field in the form of challenges faced by stakeholders, experiences stemming from ICT implementations and potential for usage of ICT in education. Consultations were also carried out with a few of the key central level agencies such as NCERT, NUEPA, NIOS, and RIE.

### **Captured perspectives from Non-Governmental Initiatives and Education Solution Providers**

Apart from the school education departments and related directorates and agencies, Non-Governmental organizations play a significant role in the school education sector. In addition to NGOs, there are a lot of Corporate Social Responsibility (CSR) initiatives carried out in school education by private organizations such as Intel, Microsoft, and Cisco. There are quite a few private players such as Educomp, Education Initiatives that are providing classroom solutions with an objective to enhance the quality of learning.

Outside of visiting governmental institutions, visits have been carried out to non-governmental organizations (ASER foundation, Center for Civil Society, Askhara

Foundation), organizations with substantial presence in school education through their CSR initiatives (Intel, Micorsoft) and education solution providers (Educomp, EI) that have a substantial experience in School Education to obtain a more holistic view on the challenges present in the school education and the learning from their experiences in the implementation of their solutions.

### 3. Objectives of the MMP

The mission of the School Education Department under MHRD as outlined in its Results Framework Document (RFD) include improving quality and standards of school education and literacy towards building a society committed to Constitutional values, providing free and compulsory quality education to all children at elementary level as envisaged under the RTE Act, 2009, and universalization of opportunities for quality secondary education. The stated objectives of the department include Access, Equity, Quality and Formulating policy and carrying out institutional and systemic reforms.

School Education MMP will target to deliver the services that enable the stakeholders including students, teachers, and administrators both at the Center and States / UTs to achieve these objectives. The School Education MMP will also be a vehicle for implementation of National Policy on ICT in School Education.

Objectives of the MMP include:

- a) Enable improvement in quality of learning
- b) Improve efficiency of school administration and governance of schools
- c) Improve service delivery of school education department to the key stakeholders including students, parents, community, teachers, and schools
- d) Access to near real-time and better quality data for decision support

The MMP is designed with a mix of indirect and direct objectives. While the MMP will play an enabling role in achieving the indirect objectives as stated in the RFD primarily focused on services that enable improvement in quality of learning, the direct objectives include access to quality data for decision support, improved service delivery of the school education department, and improved school administration and governance.



## 4. Key Insights from Stakeholder Consultations

A lot of States / UTs have made substantial progress in implementation of IT initiatives in the School Education. A snapshot of the current ICT initiatives in various States / UTs as gathered from the workshops and state visits are provided as Annexure I. Some of the key insights from the stakeholder consultations are provided below:

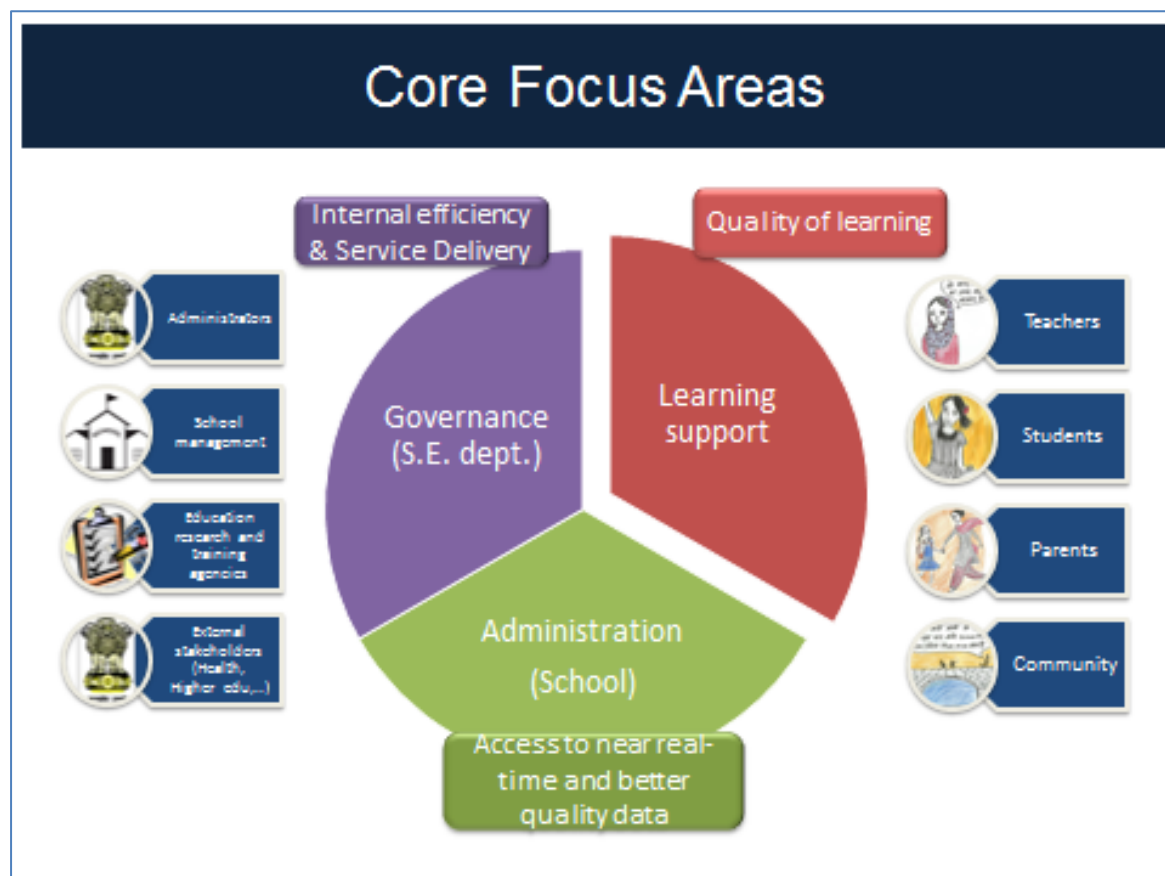
- a) Monitoring the longitudinal performance (including assessment of learning levels at the beginning and during the academic year) of the students to assess the gaps in student learning and teacher training
- b) Monitoring the student enrollment and retention to proactively identify the students at risk of dropout.
- c) Deploying IT enabled teaching learning material including digital textbooks, model lesson plans and self-learning and assessment tools in the training centers and classrooms for better learning experience.
- d) Linking the student and teacher data in order to increase teacher accountability and identify teacher training needs
- e) Teacher Capacity Building (pre-service and in-service training) to provide a more customized and personalized training as opposed to the standard training received by the teachers currently. Teacher capacity should also be enhanced to address the gaps in ICT training.
- f) Monitoring teachers' attendance and deployment on non-teaching duties to increase the teacher availability in the school
- g) Ensure better service delivery to teachers through streamlining the recruitment, posting, transfer, and other service matters (payroll, leave,..) of teachers through ICT. A significant time of teachers is lost in following up with the DEO's office on their service matters. Similarly, time of the administrators is spent in addressing court cases filed by teachers / employees.
- h) Provide single portal to facilitate delivery of multiple services such as e-content, scholarship information, other scheme related information, certificates to students and teachers.
- i) Platform for disseminating success stories and best practices
- j) Need for reliable and timely availability of students, teachers, and schools data in a format amenable for analysis to aid better decision support.
- k) Rationalization of teachers to ensure availability of subject wise teachers in every school
- l) Better regulation of private schools and provision of a single portal to facilitate delivery of multiple services including recognition, renewals, affiliation, accreditation to schools including private schools.

- m) Monitoring the various aspects of the school education (government, aided, and unaided schools) to ensure effective implementation of RTE.
- n) Streamlining the board examination processes through use of ICT
- o) Enable seamless communication across the department right to the School level
- p) Monitoring of schemes including the physical and financial progress.
- q) Departments overburdened with large number of schemes and interventions with Poor monitoring & Oversight mechanisms
- r) Creation of a single platform to address diverse needs of different stakeholders and implement schemes with large number of beneficiaries
- s) Tracking effective utilisation of fund for improving quality in education
- t) Ensuring delivery of various incentives like free uniform, bicycles, textbooks etc.
- u) Timely collection of data on various schemes from the field
- v) Integration across multiple departments for streamlining of processes and effective implementation of schemes. Integrating with civil supplies department, as done in Chattisgarh, can aid in auto-generation of the supply order for supply of rations for mid-day meals to the schools based on the attendance of the previous month of the respective school.
- w) Governance of teachers' training institutes (DIETs, RIEs,..) to enable tracking of trainees and training courses.
- x) Increasing community participation and oversight in the school administration by providing visibility of the student, teacher, and school performance to the community and parents

## 5. Core Focus Areas

Based on the objectives and interactions with the stakeholders, three core focus areas have emerged for the MMP:

- a) School Administration Services
- b) Learning Support Services
- c) Governance of School Education



### a) School Administration Services

Improving efficiency of school administration and access to near real-time and better quality data for decision support are direct objectives of the MMP. In order to enhance the data quality and also collect data that is amenable for decision support, to the extent possible taking into consideration the underlying infrastructure constraints, school should become the basic unit for the implementation of e-governance initiatives under the MMP. Enablement of school operations, both academic (progress of curriculum in the classroom, student performance) and administrative (attendance, scheme implementation details) will aid in near real-time data capture at the source, i.e., school. Collection of student health metrics

may also lead to better delivery of inter-related services through other departments such as health.

Majority of the key learning support services such as identification of students in need of remedial education, focused and customized teacher training, faster feedback to teacher training institutes can be delivered only with a reliable and effective student to teacher data link. The student, teacher and school data including the underlying linkages form the basis for delivery of multitude of services to the administrators that include teacher rationalization, better monitoring of schools, effective scheme design and implementation.

**b) Learning Support Services**

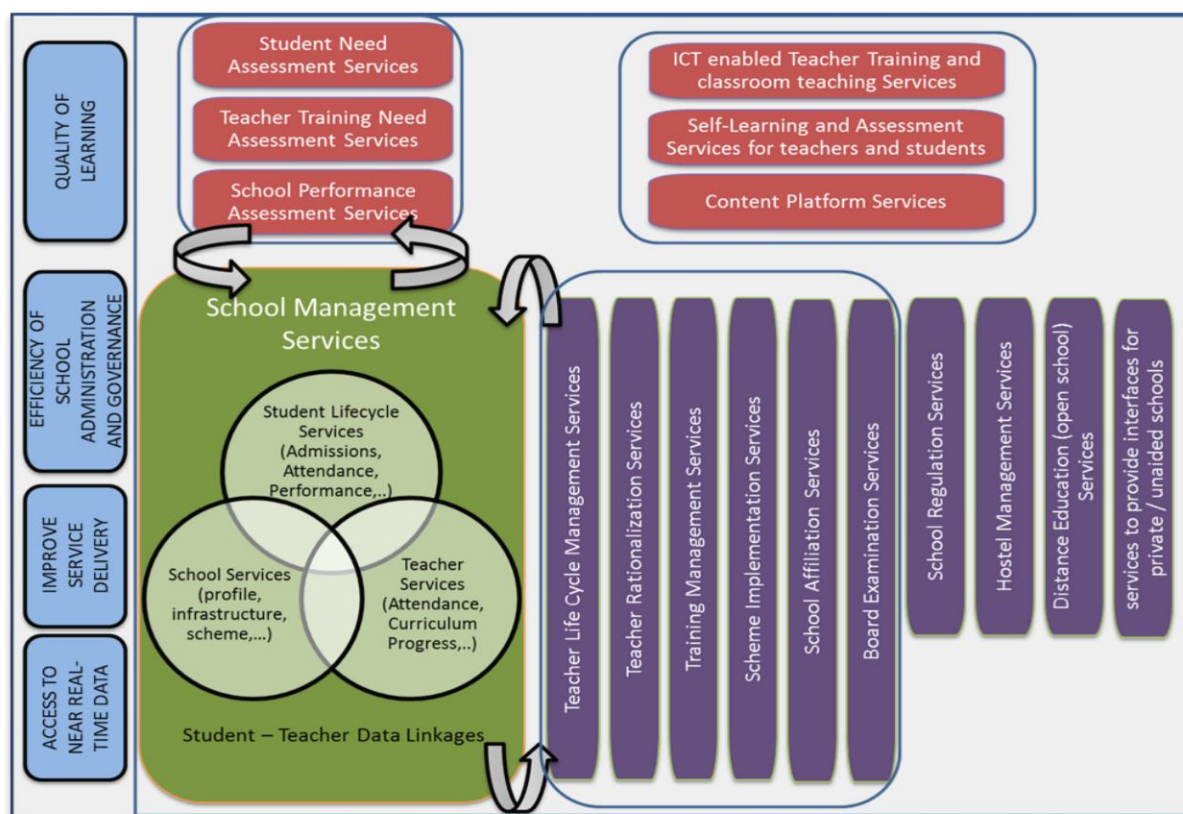
Improving the quality of learning for the students through deployment of ICT in school education came out as one of the key objectives of the MMP. ICT enabled teacher learning material (digital content, structured lesson plans, assessment tools..) both in schools as well as teacher training institutes will be an important aspect of use of ICT in school education. However, even more significant benefits can be derived through use of IT to enable identification of students in need of remedial education, focused and customized teacher training, faster feedback to teacher training institutes, and better monitoring of the under-performing schools and training institutes, all of which can significantly impact the quality of learning.

**c) Governance of School Education**

Effective implementation of ICT in various processes such as teacher recruitment and administration, regulation of schools and teacher training institutes, and scheme design and implementation can improve service delivery of school education department and efficiency of school administration and governance requires. In addition, IT can aid in efficient conduct of examinations for students, recruitment of teachers and admissions into training institutes.

## 6. Scope of Services for MMP

The suite of services to be targeted under the School Education MMP have been categorized as per the core focus areas. The below diagram depicts the suite of services under the School Education MMP:



**Suite of Services for School Education MMP**

### a) School Management Services

These services enable a platform for school operations, both academic and administrative to aid in near real-time data capture at the source. Once a platform for seamless collection and aggregation of the students, teachers, and school data including underlying linkages is put in place, numerous services can be developed and delivered on the platform to multiple stakeholders including students, parents, community, teachers, and administrators across the hierarchy.

The scope of school operations covers a variety of services and varies from school to school. In the context of the objectives set forth in the MMP, the suite of services to be delivered under the school management services have to be prioritized to focus

on the critical services in Phase I and the remaining in a later phase after the stabilization of Phase I. Based on the prioritization carried out with respect to impact on the outcomes and ease of implementation, school management services should be implemented in phases.

Sub-services to be covered under School Management Services:

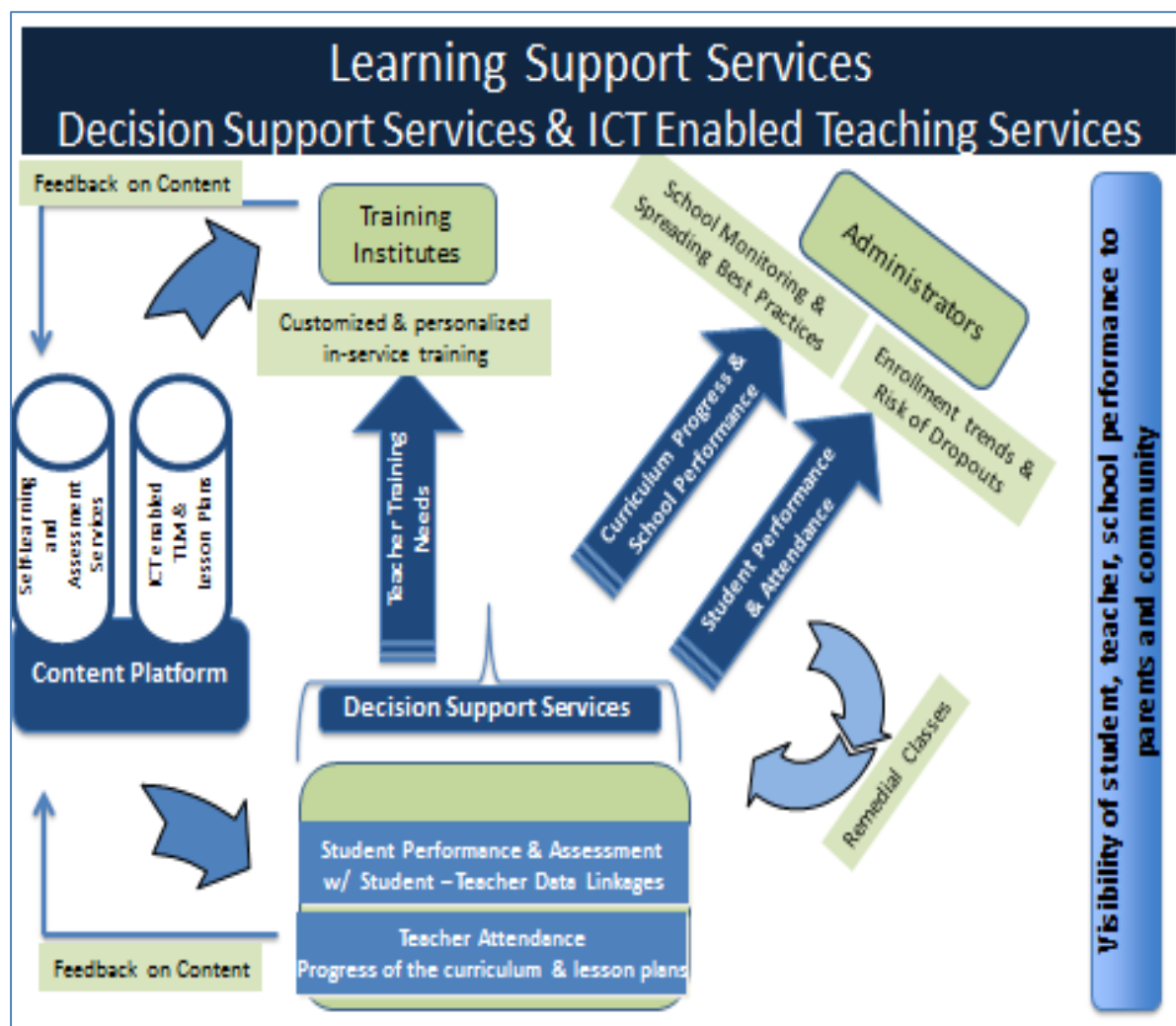
- i. Student lifecycle services with respect to enrollment, admission, attendance, CCE-based performance / assessment, and health metrics
- ii. Teacher services (regular as well as substitute or temporary) with respect to attendance, progress of the curriculum and lesson plans in the classroom, conduct of assessments
- iii. School services with respect to profile, underlying infrastructure, scheme implementation details
- iv. Services to establish the linkages between student and teacher performance
- v. Services to integrate with school boards, school regulation bodies, and other related agencies in the school education ecosystem
- vi. Services to provide visibility of student, teacher, school performance to parents, community, and administrators
- vii. Services (crowdsourcing) to enable parents and community to provide inputs on the student, teacher, and school particulars that enable validation of the data received from schools thereby enhancing the quality of data
- viii. Library Management Services
- ix. Laboratory Management Services
- x. Services for School Management Committees
- xi. Hostel Management Services
- xii. Event Management Services
- xiii. Extracurricular activity management and assessment Services
- xiv. Accounts / Assets related Services
- xv. Stores related Services

The implementation of school management services in a school should take into consideration not only the underlying infrastructure constraints such as availability of computers, connectivity, power, physical infrastructure, IT capacity building at the school to manage the infrastructure but also the number of students and teachers in the school. Where such constraints or numbers make such implementation unfeasible, alternate implementation strategies for data collection such as a deployment of at least a single computer in the school, mobile devices, month-end data inputs from the district headquarters or a near-by school need to be considered.

## b) Learning Support Services

Improving the quality of learning for the students through deployment of ICT in school education is a key objective of the MMP. Learning Support Services include the services that can play an enabling role in improvement of quality and standards of school education.

ICT can provide additional teaching aids in terms of ICT enabled teaching learning material, model lesson plans (for explanation of concepts), self-learning tools, and standardized assessments that can be deployed in both schools and training institutes. On the other hand, decision support services built on student performance and attendance data capturing the underlying student-teacher linkages can provide continuous feedback on the student and teacher performance to schools, training institutes and administrators.





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### **Decision Support Services**

i. Student Need Assessment Services

Student Need Assessment services derived from student attendance and performance provides visibility to administrators at school as well as school education officials to:

- a. Identify students who are in need of remedial classes well before the end of the academic year
- b. Identify students with increased risk of dropout based on their attendance and performance patterns
- c. Trends in student enrollment

ii. Teacher Training Need Assessment Services

Establishing the linkages between student and teacher performance (after taking into consideration parameters such as school working days, student attendance and earlier performance of student) enables identification of not only teachers in need of training but also the training needs of the teachers. This can aid in delivery of more customized and personalized in-service teacher training. Such analysis also provides feedback on the pedagogy, courses and training material to the teacher training institutes.

iii. School Performance Assessment Services

School performance assessment services built on the student and teacher data captured at the school enables comparative analysis of schools with similar profiles on various parameters such as progress on the curriculum, school working days, attendance of students, attendance of teachers, performance of students and teachers. Such analysis may aid in:

- a. Visibility of the school performance relative to similar schools to the school teachers and administrators.
- b. Visibility of under-performing schools to the administrators that aids in scheduling the school inspections
- c. Identification of best practices (lesson plans, remedial classes, teacher training, school administration) in the high performance schools for dissemination to the other schools

### **ICT Enabled Training, Teaching, and Assessment Services**

ICT enabled teacher learning (digital textbooks, short subject and language videos, videos of classroom teaching in best performing schools, structured lesson plans, self-learning tools, assessment tools..) deployed in schools as well as teacher training institutes can have an impact on the quality of learning. The



solutions designed for delivery in the classroom in the school may be customized and deployed for teacher training.

Such solutions may not be amenable for one-size-fits-all or developed at the center. The content has to suit the local context, teachers' ease for use, and several other factors. Also, since standard content may not suit all requirements, MMP should only provide an enabling platform for schools and training institutes to either develop in-house or procure and deploy it on a trial basis. The end-users (schools and training institutes) should have the flexibility in such selection and usage matters.

In respect of the ease of implementation, deployment of ICT in teacher training may be more feasible as compared to the deployment of the same in schools because of target size, numbers and locations of training centers.

MMP may only provide an enabling platform for ICT enabled delivery as opposed to actual content development or procurement. Also, the actual business models such as in-house development or procurement with respect to content for implementation should be left to States or even Districts.

i. ICT enabled Teacher Training and classroom teaching Services

IT can augment the teacher training, both pre-service and in-service training and classroom teaching through utilization of ICT enabled teacher learning material, model lesson plans (explanation of concepts), classroom videos, and best practices across the performing schools in the training centers.

ii. Self-Learning Tools for teachers and students

Providing access to self-learning tools to teachers and students can identify the weak areas and enhance the subject knowledge. A "talk-center" approach as adopted by one of NGOs that enables the teachers to have a conversation with the trainer in the talk-center may also be explored for self-learning tools.

iii. Assessment Services

Assessment services enable standardized assessment of teachers, and students' learning levels and provide quick feedback to the trainers or teachers. Deployment of standardized assessment tools will aid in comparison of teachers and students on uniform baseline but also aid trainers or teachers. Assessment services can also be deployed for in-service teachers to identify the gaps in teacher learning and provide the feedback to teacher training institutes.

iv. Content Platform Services

Student Resource Hub to host all the relevant student resources and a Teacher Resource Hub to host the teacher resources can provide the enabling platform for ICT enabled delivery services. The content platform services should include the entire content lifecycle services including content authoring, multi-step approvals, dissemination, and secure access based on the end-user. Such a platform should also provide services to users for providing feedback on the content that can facilitate segregation of high-utility content and easy access to the same.

c) **School Education Governance Services**

There is huge scope for implementation of ICT for school education governance to improve service delivery of school education department and efficiency of school administration and governance. While a few of the services are dependent on the student, teacher and school data available from the school management services, a few of the services such as teacher lifecycle management services are independent and may be implemented even before the implementation of school management services.

While there are a number of services that can be implemented as part of the school education governance services, prioritization of the services was carried out to identify the services that should be targeted in the first phase of the MMP. The prioritization with respect to impact on the outcomes and ease of implementation and was carried out on the basis of inputs received in the National Workshop.

i. Teacher Life Cycle Management Services

Services related to the service matters of a teacher in the government school system. It starts with recruitment, teacher eligibility tests (TET), payroll, administration of postings, transfers, records of deployment on non-academic duties, seniority lists, promotions, retirement, pensions, awards, availability of all orders/ circulars issued by the administrative departments etc.

Services related to recruitment right from receiving the applications, verification, assignment of examination centers, issue of hall tickets, and publishing of results may form scope of teacher life cycle management services.

ii. Teacher Rationalization Services

One of the key requirement, in addition to the deployment of teachers as per the RTE norms, is to ensure the availability of subject teachers in the schools. Teacher rationalization services can be derived from the student, teacher and school particulars available from the implementation of school management services.

iii. Training Management Services

Capturing the training details including the details of the trainees (teachers), training courses and teacher educators will enable establishing the linkages between the teacher performance and the training institutes. Such linkages will aid in providing feedback to the teacher educators and training institutes based on the teachers' performance in the school.

Since training institutes will be equipped with IT infrastructure for ICT enabled delivery of training, the same infrastructure may be leveraged for deployment of training management services. Governance of DIETs, RIEs and similar pre-service and in-service training institutes may be covered under the services.

iv. Services to provide interfaces for private / unaided schools for reporting school particulars

While the school management systems are targeted to be implemented in government and aided schools, these services would provide interfaces to the unaided schools for submitting the school particulars as mandated by the school education department.

v. Scheme Implementation Services – Student and School Centric

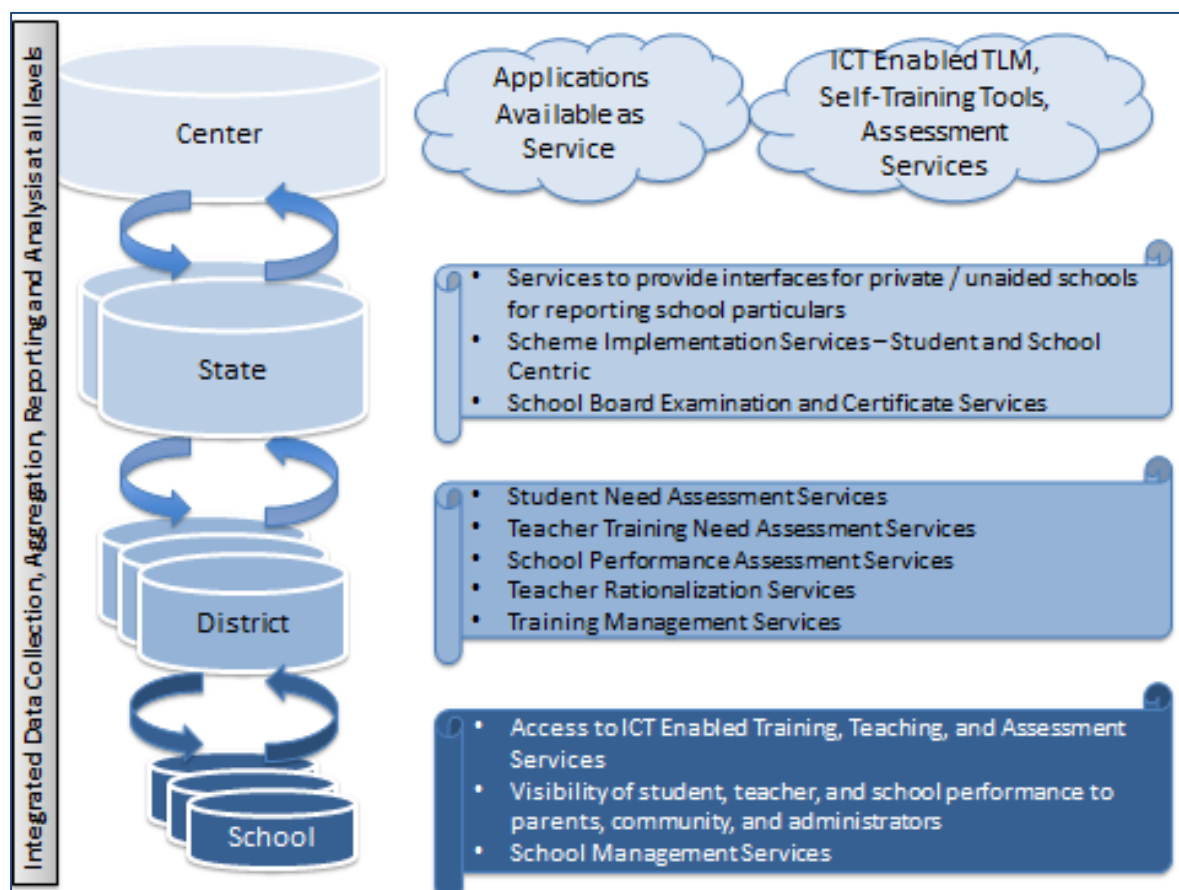
A lot of schemes implemented by States and Center are based on the student and school data available from the schools. MIS based on quality data can aid in better design of the schemes. Also such data can enable in minimizing the leakages and more effective implementation of the schemes that can ensure that the benefits or entitlements reach the targeted beneficiaries.

- a. MIS services for Scheme Design
- b. Application, approval and disbursement services for schemes such as scholarships for students
- c. Auto Indent (for recurring) and distribution services for schemes such as free text books, bicycles,...
- d. Advance notification services to the targeted beneficiaries (students, parents, community, schools) of the schemes regarding approvals and disbursement

- e. Scheme lifecycle services for schemes such as SSA, RMSA, MDMS including receipt and approval of proposal, allocation of budgets, and monitoring the physical and financial progress of the scheme implementation.
- vi. School Board Examination and Certificate Services  
Services related to entire conduct of examinations right from receiving the nominal rolls of the students from the schools, verification, assignment of examination centers, issue of hall tickets, and publishing of results may be provided. Services with respect to creation of state level certificate repositories or integration with the national certificate repository will form scope of these services.
- vii. School Regulation and Affiliation Services  
These are services related to regulation and inspection of schools carried out from the DEO's office. School recognitions, renewals, inspections related services may be enabled. The suite of services will also include services related to affiliation of schools and renewal of the same with the state boards or other school boards.
- viii. Admissions Management Services  
Services to students related to application and enrollment to premier state schools.
- ix. Hostel Management Services  
These are services related to management of hostels through near-real time capture of particulars of the hostel inmates, available infrastructure, inventory and other hostel details. The services would aid in efficient management of hostels.
- x. Distance Education (open school) Services  
These are services related to receiving the applications, registration of student, assignment of study centers, delivery of courses through online platform, and management of the examination lifecycle processes.

## 7. Phasing of Services

School Management Services provide a platform for school operations, both academic and administrative to aid in near real-time data capture at the source. Majority of the key learning support services such as identification of students in need of remedial education, focused and customized teacher training, faster feedback to teacher training institutes can be delivered only with a reliable and effective student to teacher data link. The student, teacher and school data including the underlying linkages form the basis for delivery of multitude of services to the administrators that include teacher rationalization, better monitoring of schools, effective scheme design and implementation. School should become the basic unit for the implementation of e-governance initiatives under the MMP.

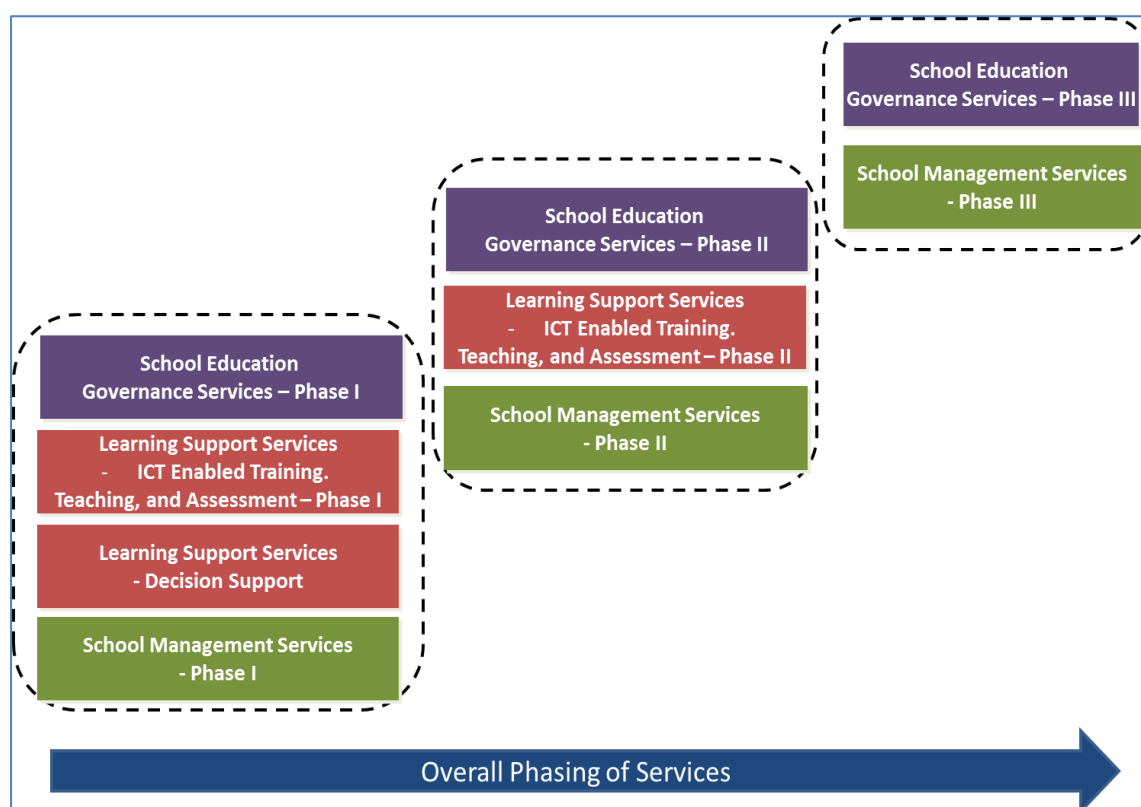


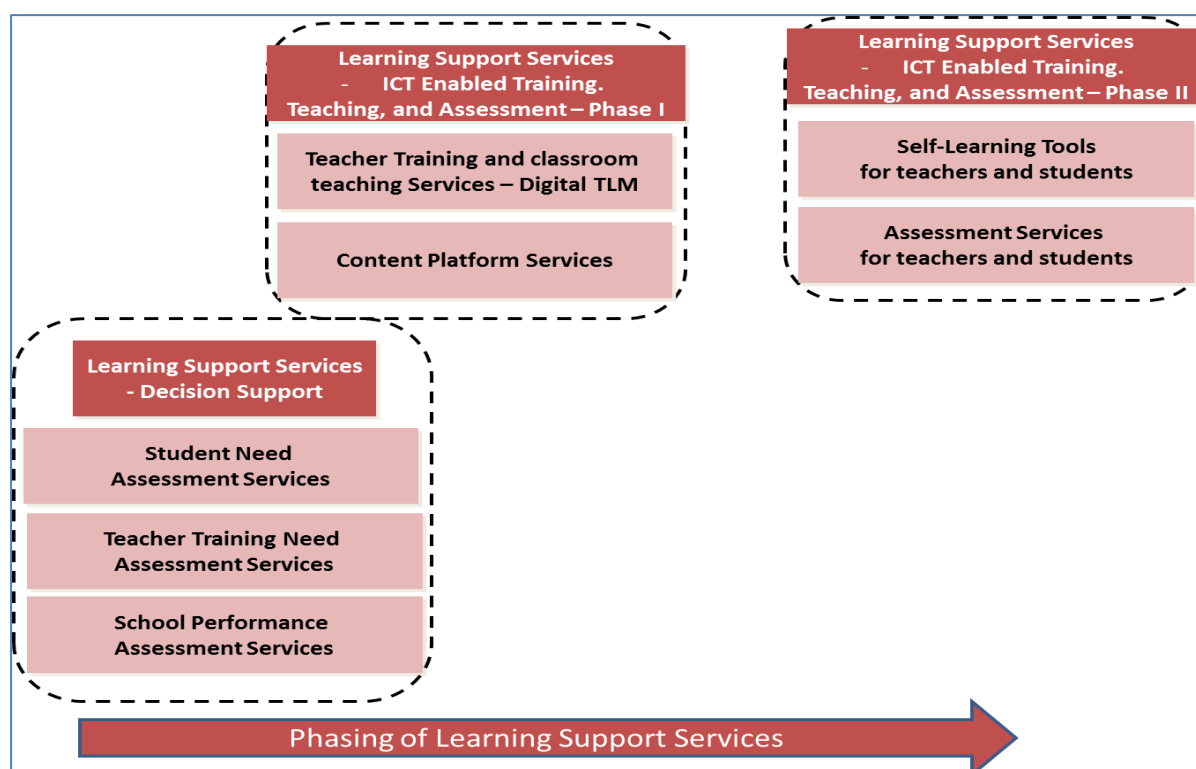
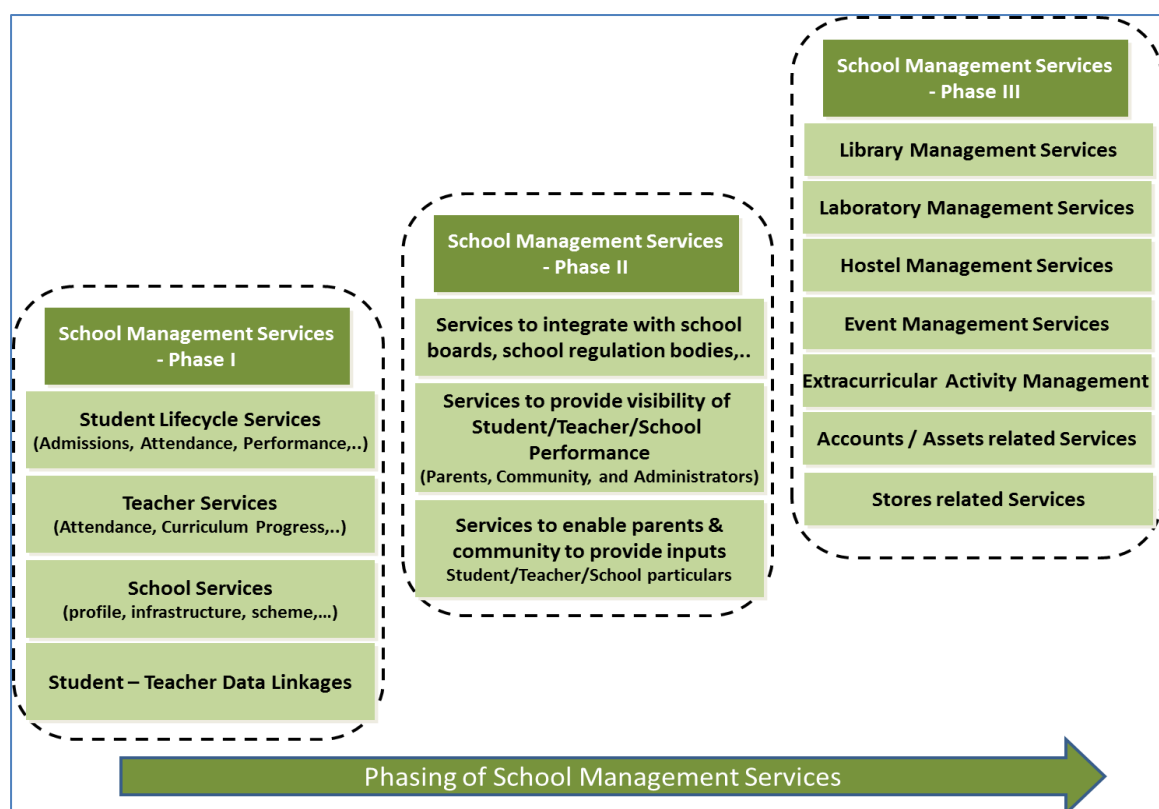
The scope of school operations covers a variety of services and varies from school to school. In the context of the objectives set forth in the MMP, the suite of services to be delivered under the school management services have been prioritized to focus on the critical services in Phase I and the remaining in a later phases after the stabilization of Phase I.

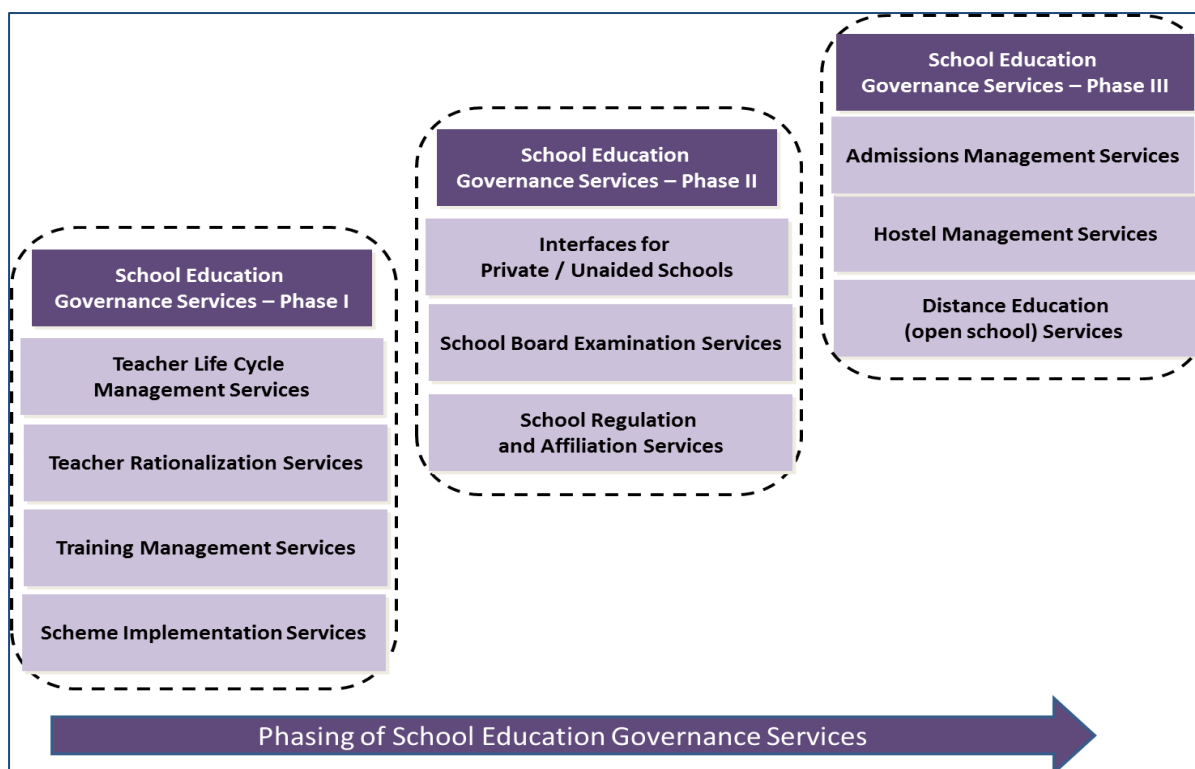
Improving the quality of learning for the students through deployment of ICT in school education came out as one of the key objectives of the MMP. and ICT enabled

Teacher Training and classroom teaching Services along with the underlying content platform and the decision support services with respect to identification of students in need of remedial education, focused and customized teacher training, faster feedback to teacher training institutes, and better monitoring of the under-performing schools and training institutes, should be taken up in the Phase I.

Keeping in view of the large number of teachers employed in government and aided schools and the stakeholder inputs, better service delivery to teachers through streamlining the recruitment, posting, transfer, and other service matters (payroll, leave,...) of teachers through ICT is one of key outcomes of the MMP. Similarly, teacher rationalization services to ensure even deployment of the subject teachers in the schools and training management services to cover the governance of the training institutes should also be taken up in the Phase I.







## 8. Desired Outcomes

The desired outcomes of the MMP in the School education are

- Improvement of quality and standards of education
- Visibility of student, teacher, and school performance to parents, community, and administrators
- Customized and personalized in-service teacher training
- Enhanced service delivery to teachers through streamlining the recruitment, posting, transfer, and other service matters (payroll, leave,..) through ICT
- Availability of reliable and timely data of students, teachers, and schools in a format amenable for analysis to aid better decision support
- Better monitoring of schemes and financial management
- Creating single platform to address diverse needs of different stakeholders and implement schemes with large number of beneficiaries
- Improved interfaces of schools with administrators, boards, and allied departments such as Health, Higher Education



## 9. Implementation Framework

While the detailed implementation approach will be developed in the design phase, the underlying framework, based on the inputs received during the core scoping exercise, for successful implementation is presented in this section.

### a) **Leverage existing applications and content**

A lot of States / UTs have made substantial progress in implementation of IT initiatives in the School Education. States have also taken up initiatives to develop or procure digital teaching learning material for classroom delivery. Similarly, there are several private organizations that have established products available that may suit the requirements of school education. A snapshot of the current ICT initiatives in various States / UTs as gathered from the workshops and state visits are provided as Annexure I.

In order to speed up the implementation, it is essential to evaluate the successful implementations in government and private sector and provide a platform to enable the other States / UTs to easily replicate the implementation. Successful implementations of School Administration, ICT enabled Teacher Training and classroom teaching, Assessments, and Content Platform in the private sector where requirements are similar should be explored for the fitment to the government schools and training institutes. Similarly, successful implementations in various States/ UTs with respect to government specific requirements such as examinations management, scholarship management, scheme management should be evaluated for replication across the country.

There is also considerable scope for providing such common successful solutions as Software as a Service on cloud environment that Schools (or States) can subscribe to without going through underlying infrastructure procurement thereby hastening the entire implementation timelines.

Also, where MHRD has deployed e-governance initiatives (ex, MDM, DISE, SEMIS) for capturing school details and tracking the implementation, the overall architecture should be designed to leverage such existing solutions. DISE and SEMIS also have considerable data in digitized format that should be leveraged for School Management Services.

### b) **Flexibility to States / UTs in Implementation**

School Education MMP is classified as a State MMP, given the constitutional division of responsibilities between Centre and States. In order to successfully execute the scheme, it is critical to get the complete buy-in and involvement of the School

Education Department of the States. The project objectives have to be balanced between the needs and priorities of the state government and the schools at the cutting edge and the objectives of the stakeholders at the center.

The state governments have to be given flexibility in the implementation of the scheme without losing on the advantages of standardization of the processes, applications, and data structures. While general guidelines can enable standardization of efforts, the scheme should provide enough flexibility for the governments in the actual implementation within the broad framework and architecture.

**c) Aligning phasing of MMP with existing schemes (SSA, RMSA, ICT @ School,..)**

Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhayamik Shiksha Abhiyan (RMSA), flagship schemes of MHRD, are implemented with an objective to improve the school level infrastructure. ICT @ Schools Scheme provides support to States/UTs to establish computer labs on a sustainable basis. Phasing of School Education MMP should be designed to align with the phasing of such schemes so that the infrastructure becomes available in the schools and schools are ready to adopt the e-Governance initiatives.

Also, where such provision of infrastructure, including IT infrastructure is already made for the schools through the existing schemes, the MMP should be designed to utilize and build on the existing infrastructure rather than provisioning for infrastructure in the MMP.

The geographies with mature infrastructure should be included in the first phase of implementation and the subsequent phases may have a roll-out to locations with insufficient infrastructure with a definite infrastructure improvement plan.

**d) Alternate Implementation Strategies to overcome infrastructure constraints**

Infrastructure, physical and IT including power and internet connectivity are the key enablers for successful implementation of the MMP. Improving efficiency of school administration and access to near real-time and better quality data for decision support requires school to become the basic unit for the implementation of e-governance initiatives under the MMP. Hence, infrastructure constraints have to be overcome for a successful implementation of the MMP.

- i. Leverage existing CSC's infrastructure and resources for data entry and feedback

- ii. Use of mobile platforms to undertake selected services such as attendance, governance functions under MMP and capitalize on the upcoming handheld device such as Aakash for delivery of services and content
- iii. Deployment of at least a single computer in the school,
- iv. Month-end or regular data inputs from the district headquarters or a near-by nodal school
- v. Leverage National Optical Fibre Network project, which is being planned to ensure access to every Gram Panchayat
- vi. Associate with Ministry of New and Renewable Energy for powering School computers etc.

**e) Integration with Other Departments such as Higher Education and Health**

Design of School Education MMP should take into account the potential for integration with other major projects such as Higher Education, Health, Social Welfare Department, e-District, and Employment Exchange.

- i. Unique ID for students in the School Education will enable identification of the student throughout the education system. Students moving into higher education can become seamless with same identifier for student across school and higher education. The transcripts and other student details may be transferred to the higher education system to facilitate better experience for the students.
- ii. Collection of student health metrics at the School can lead to better delivery of inter-related services through other departments such as health. Regular analysis of the student physical details (height, weight), health data, and attendance can enable health department design targeted interventions.
- iii. Income, caste and such certificates as required by the students for availing some of the schemes by the students can be made available through e-District to provide integrated end-to-end services to the students. Once integrated with the School Education MMP, the requirement of the students obtaining the certificate can be discontinued.
- iv. In a few States, Department for Backward Classes and Minorities and Department of Social Welfare also play a significant role in administration of hostels, schools, and disbursement of scholarships to students. All such students, schools and residential facilities should also be brought under the scope of the school education MMP.

## 10. Key Enablers for Successful Implementation

Successful implementation of the MMP depends on having key enablers in place prior to the start of the implementation. The details of a few of such enablers are provided in this section. While some of these initiatives such as Capacity Building may be started at the earliest, a few initiatives related to process interventions should be taken up during the design phase.

### a) Capacity Building

In a highly people-oriented department like the School Education, maximum emphasis has to be laid on Human Resource Development and Capacity Building – both at individual and Institutional levels. Once the people at the cutting edge level are convinced of the usability and utility of the MMP interventions, the implementation risk is substantially mitigated. Building the capacity at the Center and States / UTs to take up the initiatives should be taken up prior to MMP implementation. Capacity building in form of e-Champions or CIO training (2-6 week programs) should be taken up for ~350 officers across all the levels from the States/ UTs. Such programs should be conducted right during the design phase of MMP (preparation of DPR or elaboration of requirements) to enable the officers to actively participate and contribute to the design of the MMP. Such involvement of the officers of State School Education Department in the design phase will lead to complete buy-in and ownership of the program in the States / UTs.

### b) Clear identification of the roles and responsibilities of the key stakeholders

In addition to the Department of School Education and Literacy and Department of Higher Education of Ministry of Human Resource Development (MHRD) at the Center and Education Department in the States, there are several national (NUEPA, NCERT, CBSE, CIET, NCTE, NIOS, KVS, NVS) and state level agencies (SIEMAT, SCERT, SIET, DIET, State Examination Boards) within the education ecosystem that deal with School Education. The success of the MMP depends on how well the different groups of Stakeholders coordinate with each other. Since the proposed MMP interventions span across multiple stakeholders, it is critical to establish the role clarity and ownership responsibility fairly early in the Program, through a clear definition of the roles, making a provision for periodic revisit of the same to meet the evolving requirements.

IT@School, which began as a project in 2001 to improve computer literacy, is now a nodal agency in Kerala for every aspect of ICT in School Education. IT@School manages almost all projects including improving IT infrastructure, IT capacity building, e-Governance, and educational content for School Education in Kerala. A

strong governance structure on the lines suggested by DeiTY for Center-State MMPs may be setup at MHRD and States / UTs to provide the required support to the MMP.

**c) Data Standards**

Creation of the data standards for students, teachers, and school is required to enable integration of data from various schools, comparative analysis across schools and also seamless integration with the data received from the unaided schools which are outside the scope of this MMP. While DISE and SEMIS already provide such data standards, the standards with respect to student data and any gaps with respect to e-governance metadata standards developed by DeiTY may have to be addressed for comprehensive school education data standards. The basic principles of NeGP on data standards needs to be ensured in the design of MMP to insure interoperability across the States and as well between the e-Governance applications implemented across the sectors/ departments.

**d) Unique ID for students and teachers based on UID**

Unique identification of students and teachers is a pre-requisite for implementation of the School Education MMP. Majority of the key learning support services such as identification of students in need of remedial education, focused and customized teacher training, faster feedback to teacher training institutes can be delivered only with a reliable and effective student to teacher data link where each student and teacher are uniquely identified. UID should be leveraged to provide unique ID for students and teachers. Such a unique ID will facilitate seamless transfer and tracking of students from one school to the other and also from school to higher education.

**e) Process Interventions**

Process interventions is critical for successful implementation of the MMP. Changes to existing processes have to be carried out to realize the full benefits of the implementation of IT in School Education. While a few are suggested here based on the assessment carried out during the study, a detailed list of interventions have to be arrived at during the design phase of the MMP in consultation with all the stakeholders.

- i. A Higher Secondary School with comparatively better equipped ICT infrastructure and trained resources may be identified as a 'Nodal Center. A certain number of 5-7 schools in the local area may be affiliated to the Nodal Center. The school attendance/ performance information and any other data

- exchange from the department including digital content can be carried out through the Nodal center.
- ii. Standardized assessments (unit/ quarterly/ half yearly and annual exams) for all classes may be carried out with the help of State Education Department. Where such standardization may not be feasible across the State, the Nodal Center as identified above may be given the responsibility of preparation of the standardized assessments.
  - iii. In the beginning of the academic session, standardized assessments may be conducted to understand the learning levels of the previous year classes to identify the students in need of bridge classes.

## 11. Next Steps

A Core Scope Document outlining the target set of services for the School Education MMP lays the foundation for the design and implementation of the MMP. To take the MMP closer to the implementation, following are the recommended immediate next steps:

### **a) Capacity Building Program for selected officers across the States / UTs**

Capacity building in form of e-Champions or CIO training (2-6 week programs) should be taken up for ~350 officers across all the levels from the States/ UTs. Such programs conducted right during the design phase of MMP (preparation of DPR or elaboration of requirements) will enable the experts to actively participate and contribute to the design of the MMP. Such involvement of the officers of State School Education Department in the design phase will lead to complete buy-in and ownership of the program in the States / UTs. While the capacity building of the targeted group may be dependent on the overall approvals of the project, a smaller sub-set may be taken through the e-governance training program and become actively involved in the preparation of the Detailed Project Report for the MMP.

### **b) Preparation of Detailed Project Report to facilitate financial approvals by the competent authority**

A detailed project report (DPR) with the summary of the proposed solution in terms of the software, infrastructure, Capacity Building, Project Management requirements along with the financial implications has to be prepared. The project report with total outlay and year-wise phasing of the funding requirements will facilitate in getting the financial approvals for the MMP by the competent authority.

## Annexure I – Snapshot of Current ICT initiatives in States/ UTs

S.No	Services	Current initiatives in States / UTs
1.	School Management Services	<ul style="list-style-type: none"> <li>→ Enrolment Services-Special Enrolment Drive (<b>Chhattisgarh</b>);</li> <li>→ Sampoorna – School Management System (<b>Kerala</b>);</li> <li>School Management System - Online Enrollment System, facilitation for PTR norms, CTR Norms, Guest faculty Deployment, SSA funds transfer (<b>Madhya Pradesh</b>);</li> <li>→ School Profile Registration (<b>Uttarakhand</b>)</li> <li>→ SISE- State Information System for Education – (Teacher Attendance) (<b>Puducherry</b>);</li> <li>→ Educational Management Information System (EMIS) (Teacher Attendance &amp; Smart Card for students)(<b>Tamil Nadu</b>)</li> <li>→ Learning Enhancement Programme (LEP) software (<b>AP</b>);</li> <li>→ Monthly Monitoring of Schools (Pilot- <b>AP</b>);</li> <li>→ Learning Enhancement Program (<b>Madhya Pradesh</b>);</li> <li>→ Student Profile – Attendance and Performance capturing system &amp; 16 digit Child U-id for identification (<b>Chhattisgarh</b>)</li> <li>→ BACALS (Biometric Attendance and Computer Aided Learning for Schools)(Teacher/ Student Attendance) (<b>Gujarat</b>)</li> </ul>
2.	Learning Support Services	
	2(a). Decision Support Services	<ul style="list-style-type: none"> <li>→ Employee Training Needs Assessment and Monitoring System (<b>Madhya Pradesh</b>);</li> <li>→ Academic Achievement levels of Children (<b>Madhya Pradesh</b>)- Inputs for Bridge and Remedial Classes</li> <li>→ Performance Analysis- captures School-wise, Subject-wise, Teacher-wise Results and generates the list of teachers who drawing the salary from a school but are not teaching any class &amp; list of poor performing teachers, schools. Also generates grading of the schools, blocks and districts and facilitate timely correction actions (<b>Madhya Pradesh</b>);</li> <li>→ Inspections –reports- Corrective follow-up action taken on reported problems, Action on Absent teachers, pending issues (<b>Madhya Pradesh</b>);</li> </ul>
	2(b). ICT Enabled Training and Teaching	<ul style="list-style-type: none"> <li>→ School Wiki &amp; Content development (<b>Kerala</b>);</li> <li>→ Community Information Centre-Vidya Vahini (CIC-VV) (<b>Andaman- Nicobar Islands</b>);</li> </ul>

S.No	Services	Current initiatives in States / UTs
	Services	<ul style="list-style-type: none"> <li>→ Telecast/broadcast and repository of Media Programmes, talking and e-books (<b>NCERT</b>);;</li> <li>→ EDUSAT <b>Punjab; NCERT; Chhattisgarh</b>;</li> <li>→ Education Content Server (ECS) (<b>Tamil Nadu</b>) <ul style="list-style-type: none"> <li>-Smart Schools : In Smart Schools the emphasis would not only be on the use of Information Technology but also on the use of skills and values (<b>Tamil Nadu</b>)</li> <li>-Computer Education to Students in Standards VI To X (<b>Tamil Nadu</b>);</li> </ul> </li> <li>→ Basic ICT capacity building training &amp; Project Shiksha (MS Teacher training) (<b>Tamil Nadu</b>)</li> <li>→ Content Management - facilitates common benchmark - Standard Assessment (<b>Madhya Pradesh</b>);</li> <li>→ Content Development (<b>Gujarat</b>) (<b>Tamil Nadu</b>)</li> </ul>
3	School Education Governance Services	<ul style="list-style-type: none"> <li>→ Intra SED(West Bengal);</li> <li>→ School Inspections – Monitoring, follow-up and Management (<b>Madhya Pradesh</b>)</li> <li>→ Online Fund Disbursement and Monitoring System (<b>Chhattisgarh</b>);</li> <li>→ Financial Accounting Management System (FAMS) <b>Madhya Pradesh</b>;</li> </ul>
	3(a)Teacher Life Cycle Management Services	<ul style="list-style-type: none"> <li>→ Teacher Eligibility Test (APTET)</li> <li>→ Spark' / 'Teacher's package' – A teacher HRMS (<b>Kerala</b>);</li> <li>→ Online Teacher's Information System (<b>Chhattisgarh</b>);</li> <li>→ Para Teacher Personal Information System (<b>Jharkhand</b>);</li> <li>→ Pension Grievance (<b>West Bengal</b>);</li> <li>→ On line transfer process for teachers and all cadre employees &amp; HRMS (<b>Karnataka</b>)</li> <li>→ Teacher Life Cycle Management Services - employee database, payroll, service records, transfers, counseling for posting, grievances redressal, new pension scheme implementation (<b>Chhattisgarh</b>); (<b>Madhya Pradesh</b>);</li> </ul>
	3(b)Teacher Rationalization Services	→ <b>Kerala; Chhattisgarh, Madhya Pradesh</b>
	3(c)Training Management Services	→ <b>Kerala</b>
	3(d)Interfaces for private / unaided	→ Online workflow system for the automation of the processes involved in recognition of private schools under RTE ( <b>Madhya Pradesh</b> );



S.No	Services	Current initiatives in States / UTs
	schools	→ Private school Management System ( <b>Karnataka</b> )
	3(e) Scheme Implementation Services	→ Online Mid-Day Meal System (Linked with PDS)( <b>Chhattisgarh</b> ); Central Plan Scheme Monitoring System (CPSMS-SSA)( <b>Jharkhand</b> ); → Application for Scholarship ( <b>Tripura</b> ); → Cooked Mid-Day Meal Programme (CMDMP- online/ SMS) & Scholarship forms ( <b>West Bengal</b> ); → Demand and distribution of Assistance like Textbooks, Uniforms, Scholarships, bi-cycles etc.( <b>Madhya Pradesh</b> ) → Extra-curricular event support (3 systems): Portals for Kallolsavam, Sastrothsavam & School sports- <b>Kerala</b> → Geo Spatial Maps of <b>Gujarat; Kerala; Jharkhand; West Bengal ; AP, Chhattisgarh</b>
	3(f)School Affiliation Services	→ School recognitions ( <b>Madhya Pradesh</b> ); → Karnataka School Quality Assessment And Accreditation Council(KSQAAC) ( <b>Karnataka</b> )
	3(g)Board Examination Services	→ Examination systems( <b>Kerala</b> ); → Board of Secondary Education ( <b>Chhattisgarh</b> ); <b>Karnataka; Gujarat; AP</b>
	3(h) School Regulation Services	→ <b>Madhya Pradesh</b>
	3(i) Hostel Management Services	→ <b>Andhra Pradesh</b>
	3(j) Open Schools	→ Timetables, Course Material, Admission Cards, results- <b>Madhya Pradesh</b>

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## **Annexure II – List of Indicative Services**

### **I. School Administration Services**

#### **1. Student Lifecycle Management Services Landscape**

- (i) Enrollment/ Admissions/ Transfers
- (ii) Examination/ Results
- (iii) Academics performance
- (iv) Attendance (Students)
- (v) Health Metrics
- (vi) Co-Curricular Activities
- (vii) Certificates

#### **2. Academic Operations**

- (i) Curriculum / Syllabus
- (ii) Time Tables
- (iii) Lesson Plans
- (iv) Library Management

#### **3. School Administration Services**

- (i) Accounts/ Fee
- (ii) Teacher/ Staff Management
- (iii) Inventory/ Asset
- (iv) School Particulars
- (v) Hostel Activities
- (vi) Scheme Implementation
- (vii) Notice board
- (viii) Scholarships & Donations

### **II. Governance of SCHOOL EDUCATION**

#### **1. Teacher Recruitment**

- (i) Registration by Students
- (ii) Verification by DSC authorities
- (iii) Final List preparation
- (iv) Download of Hall Tickets
- (v) Publication of Final Merit List for Conducting interviews and Final Selection

**2. Teacher Transfer**

- (i) Preparation of School wise teachers list
- (ii) Rationalisation
- (iii) Publication of final vacancies list
- (iv) Guidelines for posting and transfers
- (v) Request from Teachers for transfers
- (vi) Transfer and Postings Notifications

**3. Teacher Training**

- (i) Identification
- (ii) Training
- (iii) Evaluation
- (iv) Feed back

**4. Admissions into Premier Residential Schools**

- (i) Registration of Students by the authorities
- (ii) Verification by Committee
- (iii) Final List preparation
- (iv) Selection of Students
- (v) Admissions confirmations and Waiting list finalisation

**5. TET/CET (DIET/D.Ed , LP) and Admissions Management**

- (i) Registration by Students
- (ii) Verification by TET/CET authorities
- (iii) Nominal Rolls
- (iv) Download of Hall Tickets
- (v) Publications of Results and Online Counselling

**6. Examination Services**

- (i) Application/Fee
- (ii) Student Nominal Rolls
- (iii) Exam center management
- (iv) Admit Cards
- (v) Evaluation
- (vi) Results
- (vii) Revaluation / Photocopy Requests

**7. Scholarship Management**

- (i) Registration by Students
- (ii) Forwarding to Sanctioning departments
- (iii) Verification by Field Officers

- (iv) Sanction and Release
  - (v) ETF to Bank Accounts
- Tuition Fee is transferred to School and Scholarship is transferred to Student accounts

**8. Special Exams, Events Management-**

- (i) Publishing the calendar of Events
- (ii) Registration
- (iii) Facilities arrangement
- (iv) Conduct of Events
- (v) Publishing the videos of Events

**9. Schools recognition, renewals, monitoring**

- (i) Application submission for recognition , renewals, additional classes , sections
- (ii) Verification by Authorities
- (iii) Permissions from other departments
- (iv) Grant of Permissions

**10. D.Ed. Schools Affiliations, renewals, monitoring**

- (i) Request for affiliations by D.Ed institutions
- (ii) Inspection by SCERT Authorities
- (iii) Recommendation to NTSE
- (iv) Approval Process
- (v) Grant of Affiliations

**11. Funds /Budget Release Management**

- (i) Raising of requests by Schools
- (ii) Compilation of all requests
- (iii) Sanction orders
- (iv) EFT
- (v) Utilisation Certificates

**12. Scheme Monitoring**

- (i) Raising of requests by Schools
- (ii) Sanction orders
- (iii) Vendor orders
- (iv) Receipt of materials
- (v) Distribution to Beneficiaries

**13. Certificate Depository Services**

- (i) Depository

- (ii) Correction of certificates
- (iii) Duplicate Certificates
- (iv) Verification
- (v) Reporting Scores

#### **14. Court case/ disciplinary case management**

- (i) Registration of Cases
- (ii) Updation of the case status
- (iii) Implementation of Judgments
- (iv) Monitoring of Implementation

### **III. LEARNING SUPPORT SERVICES**

#### **1. ICT - Literacy content and tools for Teachers and students**

- (i) Training in ICT Based Tools for Teachers
  - a) Tools for Computer Usage
  - b) Creativity & Design Tools
  - c) Tools for Blended Teaching
- (ii) Course creation and delivery for IT literacy for students
  - d) Offline course delivery
  - e) Digital content and apps to assist in teaching IT literacy basics
- (iii) Self Assessment tools
  - f) Testing of IT literacy by assessing understanding of practical knowledge
  - g) Self-administered assessments to support learner's pace and point out concept gaps
- (iv) Interaction with key applications at school
  - h) Training for teachers and students to interact with applications developed for school governance or classroom support
- (v) Exposure to different devices
  - i) PC
  - j) Mobile
  - k) Tablet (like Aakash)

#### **2. ICT-enabled learning tools**

- (i) Question bank
  - a) Questions across classes and subjects for each curricular objective
  - b) Question bank calibrated according to toughness of questions
  - c) Questions can be sourced through teachers and educators

- (ii) Assessment engine
  - d) Automated standardized assessment tool creation based on requirements
  - e) Online as well as offline assessment provisions
  - f) Auto-Sampling based on intervention, and student background data (socio-economic data, teacher data etc.)
- (iii) Analysis platform
  - g) Analysis of standardized test results based on existing analysis templates
  - h) Provision for creating customized analysis
- (iv) Simple visualization frontend

### 3. Common platform with Teacher & Student resource hubs

- (i) Common Digital Content
  - a) Concept learning support for different subjects
  - b) Video Clips, Multi-Media Clips
  - c) Web based data Source- Wiki
- (ii) Sharing of Best Practices
  - d) Holistic learning tools
  - e) Lesson Plans
  - f) Usage of Internet/ Portals for Model Lesson Plans/ Teachings
  - g) Discussion Forums of Teacher / Student Fraternity
- (iii) Self Training Tools
  - h) Interactive Tests Modules for self assessment in subject matter
  - i) Online training
  - j) Open Distance Training for teachers on the lines of Open Schools
  - k) Training for appearing in Competitive exams
- (iv) Professional Development
  - l) Guidance to students on career choices

### 4. ICT-enabled learning tools for CWSN

- (i) Specialized applications
  - a) Text to Speech (Screen readers etc)
  - b) Braille displays
  - c) Text to sign language
  - d) Tools for children with learning impediments
- (ii) Repository of books and content
  - a) Creating Daisy source documents for all libraries and digital content
  - b) Posting of material either through CDs or online

- (iii) Improved computer interactions
  - a) Design of labs to improve accessibility

### **INDICATIVE SERVICES vis-à-vis STAKEHOLDERS**

#### **1. STUDENTS**

- (i) Student Performance Report (Academic/ Extra-Curricular/ Attendance/ Health)
- (ii) Certificate related Services
- (iii) Library Services
- (iv) Visibility into eligibility, Status-Tracking of application, nomination, sanction and Receipt for Scholarships/ Hostels/ Entitlements and admission into premier schools
- (v) View Syllabus, Timetables (Regular & Remedial), Lesson Plans, Examination Schedule, and School Calendar
- (vi) View, Apply for Special Events (exhibitions, fairs, tournaments etc), Exams etc. at District/ State level
- (vii) View Notice Boards
- (viii) Access to Services Provided by State / Central School Boards

#### **2. TEACHERS**

- (i) Access to Services provided by School/ Administrators/ School Education Department (Transfers/ Training/ Workshops)
- (ii) Maintain Progress on Syllabus and Lesson Plans
- (iii) Create and access time table
- (iv) Access to Employee Services (such as leave, loans, provident fund withdrawals, Service Register etc.)
- (v) Mark Self and Class Attendance
- (vi) Updating Relief and Rejoining after trainings, non-academic duties etc.
- (vii) Update Student Performance Data (Academic/ Extra-Curricular/ Attendance/ Health)
- (viii) Report Card Preparation
- (ix) Update the progress of additional assigned Duties /Schemes/ Clubs etc.

#### **3. PRINCIPAL/ SCHOOL AUTHORITY**

- (i) Maintain data regarding enrollments and drop-outs
- (ii) Manage admission process
- (iii) Identification of Training Needs for Teachers
- (iv) Identification of Students for Remedial Education.
- (v) Maintain and manage student, teacher, and school data including deployment of Staff in academic and non-academic Services

- (vi) Maintain and manage Academic, Financial, Asset, Inventory, and Scheme Implementation Data
- (vii) Apply, track and monitor, student applications, teacher applications etc. for scholarships, special events etc.
- (viii) Meet data reporting requirements mandated by School Education Department (DISE data etc.) and School Boards (Nominal rolls etc.)
- (ix) Application for grants, additional classrooms, permissions etc.
- (x) DSS for:
  - a. Student performance (Academic/ Extra-Curricular/ Attendance/ Health)
  - b. Teacher performance (Academic/ Attendance)
  - c. School Performance (Academic / Scheme implementation)

#### **4. PARENTS / COMMUNITY / SMC**

- (i) Visibility on Student Attendance & Performance
- (ii) Visibility on Academic calendar, Lesson plans, Syllabus completion etc.
- (iii) Visibility on Teacher Performance and School performance
- (iv) Funds Management and Scheme Implementation
- (v) Provide Inputs/ Feedback to School & Administrators
- (vi) View Notice Board
- (vii) Apply for Permission to use School Facility
- (viii) Monitor local scholarships or donations made by community or alumni

#### **5. Indicative Services on the interfaces with Administrators, Boards, Allied Departments such as Health, Revenue, Labor & Employment, Technical education, Higher education**

- (i) Report to revenue department as per request, for income, caste, nativity certificates etc. for the students
- (ii) Sharing data of student health to Health department for periodical or event-based medical interventions/check-ups
- (iii) Sharing of data on students for admissions into I.T.I, skill development programs and vocational training
- (iv) Sharing of data on students for admissions into Polytechnics, higher education and technical education
- (v) Sharing of relevant data of students pertaining to SC, ST, OBC, girl children, minorities, and CWSN to relevant departments