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Madhya Pradesh Police, Home Department, Government of Madhya Pradesh

"Providing Consultancy Services for ERP solutions & ICT interventions for Madhya Pradesh Police"

Data Digitization and Migration Strategy Plan

April 2015

Contents

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This document has been reviewed by:

S. No.	Reviewer	Organization	Date Reviewed
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About the Project

The Madhya Pradesh Police Department intends to introduce automation and e-Governance by leveraging ICT to streamline and improve upon its functioning in order to bring efficiency, transparency and accountability. In this context, M/S KPMG has been selected by MP Police Department for providing consultancy services for Enterprise Resource Planning (ERP) solutions & Information and Communication Technology (ICT) interventions.

The following project goals and objectives are envisaged:

1. Increase Operational Efficiency by:

   a. Reducing the necessity to manually perform monotonous and repetitive tasks.

   b. Improving the communication e.g. Messaging, email systems, etc.

   c. Automating back-office functions, and thereby release the police station and other staff for greater focus on core police functions.

2. Improve service delivery to the public/ citizen/ stakeholders

   a. Access to services in a citizen-friendly manner

   b. Provide alternate modes of service delivery such as internet (for general requests such as NOC, copies of documents, character verification reports, summons etc.

As part of the scope of work, "As Is" report has been already submitted which describes a number of processes being carried on in various branches/ offices of MP Police.

The "To Be" report has been prepared and submitted with the objective of defining the future process flow in the envisaged Enterprise Resource Planning (ERP) solution. For each of the process, activity/decision points recommended for ICT intervention were been identified. Moreover, specific ERP modules applicable for the processes were also been recommended in the same.

In addition, a Functional Requirement and Technical Specification document has also been prepared which states various functional requirement from different ERP modules and technical requirement of the ERP solution.

About the Report

The objective of this document is to set a strategy for digitization/ migration of documents/ files/ *note-sheets* of MP Police Department. The ERP Project would require scanning, storing and indexing of files so that they can be made easily retrievable.

The document focuses on below four aspects in this regard:

- File Management System (FMS): The ERP module which would involve handling of e-records which are currently in manual.

- Data Digitization: Preparation of e-records from manual records

- Data Migration: Migration of currently available digital data into ERP solution.

- Data Digitization Plan: Approach towards digitization activity

For this purpose high speed scanners, consumables and FMS would be required to carry out actual physical scanning of paper documents and related activities along with storage and related equipment like servers etc.

The prepared e-records shall follow a proper classification structure and well defined metadata and retention rules to ensure compliance with governance guidelines and to enable speedy retrieval of such records on need basis.

File Management System (FMS)

System Integrator shall supply and implement the FMS at the data center. Once implemented the ownership of FMS software shall pass on to MP Police while the System Integrator will continue to use it for digitization and file management purposes.

The FMS software shall be deployed on MP Police high end PC/ server by System Integrator. The details of documents/files to be scanned will be entered into FMS system by the System Integrator. The System Integrator will generate Unit Record Identifier (URI) and will paste it on the file cover (on both front and rear side). The URI will be unique for each file. Necessary folders will be created where the files will be stored post scanning.

The System Integrator shall integrate FMS to enterprise wide ERP solution of MP Police.

Also, the e-records captured within the Workflow Management module may be removed from the routine workflow and placed in safe, separate, yet accessible and searchable storage within the File Management System.

Functional requirements of FMS have been stated in the Functional Requirement and Technical Specification Document. The System Integrator shall also analyse the FMS requirements and discuss the same with MP Police officials. Subsequently, the System Integrator shall submit a document detailing the requirements which shall be approved by competent MP Police authority.

Below points have to be kept in cognizance while building such a File Management System (FMS)

1. **Legal requirements**: The best practices and guidelines for the production of preservable e-records are defined in order to comply with IT Act which specifies the requirements for retention of electronic records (section 7) as under – 1) Where any law provides that documents, records or information shall be retained for any specific period, then, that requirement shall be deemed to have been satisfied if such documents, records or information are retained in the electronic form, if:

(a) the information contained therein remains accessible so as to be usable for a subsequent reference;

(b) the electronic record is retained in the format in which it was originally generated, sent or received or in a format which can be demonstrated to represent accurately the information originally generated, sent or received; (c) the details which will facilitate the identification of the origin, destination, date and time of dispatch or receipt of such electronic record are available in the electronic record:

As per the IT Act Notifications GSR 582, the e-records creation system or software should take into account the following features of e-records-

- Life time
- Preservability
- Accessibility
- Readability
- Comprehensibility in respect of linked information
- Evidentiary value in terms of authenticity and integrity
- Controlled destructibility and
- Augmentability

As per the IT Act Amendment 2008, Standing Committee Recommendations audit of electronic documents or e-records is essential as under –

- Where in any law for the time being in force, there is a provision for audit of documents, records or information, that provision shall also be applicable for audit of documents, records or information processed and maintained in electronic form. As per the Right To Information Act 2005, Chapter II, Section 4(1) every public authority is obliged to maintain all its records duly catalogued and indexed in a manner and the form which facilitates the right to information under this Act and ensure that all records that are appropriate to be computerized are, within a reasonable time, computerized and connected through a network all over the country on different systems so that access to such records is facilitated.

Additionally following rules/acts/documents need to be referred/kept in cognizance while building File Management System for MP Police

- Retention Rules in MP Police Regulation
- RTI Act
- Official Secrets Act
- IT Act
- Secretarial Practices Handbook

2. **Unique Record Identifier**: A unique record identifier is a numeric or alphanumeric string that is associated with a single entity i.e. an e-record within a given system. The unique record identifier serves as a "filename" for an e-record. Thus it is

persistently linked or associated with the e-record so as to help in its reference, location, identification, authentication, access and control. It is also to be used as the filename for storing the e-record.

Currently, within MP Police department every filename follows a set pattern as shown below:
Police Unit\Office or Section\ file category\Seat No (optional)\Year(YYYY)]

The same may be used as a Unique Record Identifier for the respective e-record. For easier retrieval of e-record from FMS apart from the Unique Record Identifier some other parameters like year of creation of file, brief summary of the content, category of file etc. may also be used.

In case of a personnel related file below pattern in to be used as Unique Record Identifier:

Unique number (as assigned by Treasury)/ Subject of file (e.g leave, reward, TA, DE/ Year [YYYY]/ Month [MM])

FMS Acceptance

Once the FMS is implemented, MP Police will acknowledge complete software acceptance in writing.

This shall include:

a. All required activities including all changes agreed by competent authority of MP Police and delivered by the System Integrator and accepted by competent authority of MP Police.
b. All required training as defined in the **Change management and Capacity Building report** and delivered by the successful System Integrator and accepted by MP Police.
c. All identified shortcomings/defects in the systems have been addressed to MP Police's complete satisfaction.

Data Digitization Strategy

Generally 10 years record will be digitized. Older record will be digitized on need basis only. Existing permanent record will be maintained in paper form as at present for the records of older period. Files in MP Police department may be categorized into twelve categories. These files shall have to be incorporated in the ERP solution. The time span for these different categories of files are recommended for scanning and digitization is as tabulated below:

S. No.	Category	Description	Files to be Scanned
1	Circulars	All the records involving Circular, Gazatte Order Police and other documents of similar nature	March 31st, 2015 and backwards till March 31st, 2005. Additionally many important circulars since year 1948 need to be scanned. The exact number would be decided by the competent authority.
2	Selection and Recruitment	All files/ *note-sheets* involved in recruitment and selection process till the appointment letter is issued. This also includes compassionate appointment	March 31st, 2015 and backwards till March 31st, 2005
3	Human Resource	All files/ *note-sheets* involving a police personnel/ officer including, ACR, gradation list, transfer/ postings, deputation, Departmental enquiry, personnel grievances etc. This would not include service records.	March 31st, 2015 and backwards till March 31st, 2005

4	Accounts	All files/ *note-sheets* involving a police personnel/ officer including Bill vouchers, GPF drawls, Pension files, Personal files etc.	March 31st, 2015 and backwards till March 31st, 2005
5	Training	All files/ *note-sheets* involving setting up of training calendar, syllabus, training nomination, training induction, facilities maintenance (e.g. hostel), paper setting, evaluation etc.	March 31st, 2015 and backwards till March 31st, 2005
6	Purchase	All files/ *note-sheets* involving purchase of general items like vehicles, furniture, electrical equipment (Air conditioner, cooler fans etc.) and special items wireless sets, arms, ammunition, armored vehicles. Such files will include stock entry and payment to supplier.	March 31st, 2015 and backwards till March 31st, 2005
7	Proposals	All files/ *note-sheets* involving special proposals like modernisation projects, sanction of new police unit etc. which come under PLAN head	March 31st, 2015 and till March 31st, 2005
8	Welfare	All files/ *note-sheets* involving all the welfare funds and loans disbursed. Loans given for NPF activities shall be included till repayment.	March 31st, 2015 and backwards till March 31st, 2005
9	Non – Public Fund(NPF)	All files/ *note-sheets* at Police units involving NPF activities like clubs, flour mill, general store, petrol pump etc.	March 31st, 2015 and backwards till March 31st, 2005
10	Motor Transport	All files/ *note-sheets* involving maintenance of vehicles including Petrol-Oil-Lubrication (POL)	March 31st, 2015 and backwards till March 31st, 2005

11	Workflow	All files/ *note-sheets* related to normal working of the Police unit but not covered in any of the above categories. This may include Company Movement (SAF), Monthly Equipment Report(Telecom)	March 31st, 2015 and backwards till March 31st, 2005
12	Others	All files/ *note-sheets* not covered in any of the above categories but rarely worked on in a Police Unit	March 31st, 2015 and backwards till March 31st, 2005

Note:

1. Crime and Criminal related files not in the scope of this document as it comes under Crime and Criminal Tracking Network System (CCTNS).

2. Any file out of the time span mentioned shall remain in manual/ hard copy form. Such files shall be appropriately indexed manually and shall only to be scanned and migrated on to FMS by System Integrator on need basis. This would be require approval from DGP.

The documents are following type of papers:

i. A0 Size

ii. A1 Size

iii. A2 Size

iv. A3 Size

v. A4 Size

vi. A5 Size

vii. A6 Size

viii. Letter Size

ix. Legal Size

x. Other sizes

Most of this paper is of A4 size. The System Integrator shall collect the documents from MP Police official for scanning. The official will make the entry in the log register while

handing over the document. On due verification of document handed over, the representative of the System Integrator will sign on the log file and accept these files. As part of this verification, the System Integrator is advised to verify the document/file quantity with MP Police official and any discrepancy should be brought to the notice of MP Police official. The System Integrator is to perform the scanning activity at the premises allotted to them by MP Police Department.

The log register should contain at-least following details:

1. Name of document collected
2. Number of pages in the document (A4/Legal, A3/A2, A1/A0, Letter/Others)
3. Category of the document
4. Collected from (MP Police Official)
5. Collected by and signature (Successful System Integrator Representative)
6. Date of collection
7. Expected date of return
8. Returned to (MP Police Official) – Name & Signature
9. Returned by (System Integrator Representative)
10. Actual Date of Return

No blank pages should be deleted if they are part of the file. The blank page in a file is a page that is entirely blank, or has only page number, or has only rubber stamp.

The digital files scanned should be numbered digitally. The digital file shall have two sections:

(1) Noting side
(2) Correspondence side.
Both (1) & (2) will be bundled into a file. However separate addition to noting side and corresponding side should be possible. As certain files will be live and will eventually be part of FMS/e file /ERP etc., it should be possible to add scanned document on noting side and corresponding side subsequently.

System Integrator will then pre-process the files. Pre-processing of document will include the activities that are to be performed on the documents before they can be scanned. Such activities shall include, but not restrict to

i. Removal of tags, pins, threads, rubber bands etc.

ii. Sorting of pages in the document in the correct order and fumigating it.

iii. Special preparation of documents that may not be in a good physical condition and may not be directly scanned. This may include pasting of torn pages, straightening of pages, un-binding of files that cannot be scanned directly. Documents should be prepared such that normal scanner can scan it. In case of missing pages, duplicate pages

The documents/pages shall be scanned on a min. 200 DPI resolution, with digitized file size not exceeding 75Kb for one side of the page. The System Integrator should provide the maximum image quality with minimum storage capacity.

The scanned documents shall be converted into PDF/A (ISO 19005-1:2005) files. All the pages of a single physical file should be scanned and bundled as a single digital file and should be an exact replica of the physical file. This single digital file should be represented in a PDF/A format.

Page size of the physical file can vary across departments and within file also. The System Integrator shall perform the following Image Enhancement Activities:

- The System Integrator should ensure that quality of scanned imaged are enhanced up to the optimum level and required image enhancement activities like De-skew (to make the images straight), contrast ratio setting etc. has been done on the documents.

- The scanning should be done in color.

- For certain portions of scanned images, there should be option to type text of the image, so that bad/hardly readable/poor/cryptic handwriting cases are not required to be decipher by matter/issue expert every time file is referred by some new dealing hand. However before making any changes in the original document, the approval from the appropriate/competent authority should be required.

- The System Integrator must be able to carry out cropping and cleaning of images like removing black noises around the text, and providing the equal margins all around the text.

- In case the documents are not legible, it will be the System Integrators responsibility to scan the documents on high resolution i.e. 600 dpi or higher.

- In case the content of the documents are not visible then document scanning shall be done in Gray Scale. Such documents should not be more that 15% of the total documents.

- In case of duplicate page numbers in a file, a letter shall be appended in the end of the page number. For example if page number 16 comes twice in a file they are to be tagged as Page 16 and 16A respectively.

- In case of missing page, a declaration page is to be inserted stating that the page was missing in the manual file. For example if page 34 is missing between page

33 and 35, a page is to be inserted with page number 34 stating "Page number 34 was missing in the manual file."

The generated PDF/A should be optimized for viewing over the internet i.e. pages should be viewable as soon as they are downloaded without waiting for complete file to be downloaded i.e. A multipage file is downloaded page-by-page and should be viewable as soon as a page is downloaded rather than having to wait for the entire file to download.

The System Integrator has the responsibility to upload all the scan data to the central storage. Technical requirement has been mentioned in the Function Requirement and Technical Specification document. The System Integrator is also recommended to propose the hardware and storage requirement for the same.

The details of documents/files to be scanned will be entered into FMS system by the System Integrator. The System Integrator will generate the URI from the system and will paste it on the file cover (on both front and rear side). The URI will be unique for each file. Necessary folders will be created where the files will be stored post scanning.
No document shall be digitized more than once. The file numbering will be checked by the System Integrator.

After scanning, the physical document would have to be pinned together/tagged in the same form as it was given for scanning by the MP Police official. Each page shall be serially arranged and shall be counted while giving the documents back.

It would be the responsibility of the System Integrator to maintain and return the documents in their original form to the MP Police official. Any damage to the documents collected shall make the System Integrator directly responsible for the same.

The System Integrator shall also store the scanned files on the DVD and submit it to the competent authority of MP Police on the frequency decided by competent authority of MP Police. The same shall be shared with respective Unit heads for verification on their end after the records have been uploaded on the DMS. Until the unit level verification is approved by the unit head, the manual records only are to be treated as official. Once such an approval is received, the e-records for that unit may also be treated as official. The competent authority of MP Police shall advise the Unit heads to perform this unit level verification at the earliest. The quality check of the scanned image need to be done on daily basis by branch/unit team of police officials. Hence in every branch/unit a data digitization team will be constituted by branch head/unit head. It will submit daily progress report with commention delays/pre-achievement of targets. Such verification by all police units shall also be tracked by the System Integrator and shall be communicated to competent authority of MP Police. The responsibility of verification of e-Records is to be done solely by the concerned Police Unit.

It is recommended that a PHQ level **Monitoring Committee** consisting of senior Police Officials should be created during the project implementation phase. A similar committee may be made at the zonal level. Such committees shall work closely with the team of system Integrator monitoring the data digitization progress but also resolving any issues faced by the stakeholders. In case any issues/ errors/ discrepancies are found out by Police Units during verification, the Unit head shall notify the **Zonal Monitoring Committee** which shall direct the System Integrator's team to revisit the concerned police unit and redo the scanning activity. The revised file(s), stating their Unique Record Identifier with appropriate version are to be shared with Zonal Monitoring Committee and concerned Police Unit. This process is to be re-iterated until the records are verified and approved by concerned unit head. The verified CDs will be made 03 copies for (i) Unit Head (ii) System Integrator team (iii) PHQ/ Zonal Monitoring Committee. The CDs will be properly marked as: "Final Verified Data, Name of Police Unit, Date of Verification" on permanent marker pen.

Following folder structure has to be followed while storing the digitized data in the storage device. Folder path should be [**Police Unit\Office or Section\ file category\Seat No (optional)\ Year (YYYY)**]. Nomenclature of the digitized file should be in accordance with the e -Governance standard. In case of a personnel related file below pattern in to be used:
Unique number (as assigned by Treasury)/ Subject of file (e.g leave, reward, TA, DE/ Year [YYYY]/ Month [MM])

Version Control mechanism is to be allowed. Version control has to be done in case of addendum to the pre-existing digitized file. System Integrator will have to make this facility available in the scanning and indexing module.

The System Integrator shall also provide tools for checking the scanning progress. This shall include the daily, weekly, monthly and overall progress (number of images/pages scanned, percentage scanned etc). The tool should also display division- wise progress. The tool should be able to provide reports on the status of scanning on a periodic basis. The tool has to be online for DGP and all the ADGs/Zonal IGs to review the progress of the scanning activity.

The System Integrator shall maintain a register that will serve a purpose of evidence for the number of documents and pages entered by the System Integrator on each day. The details of this register would have to be entered into the tool mentioned on a frequency as finalized by the competent authority of MP Police.

Any open source online reporting tool may be utilized for this purpose. However, if the System Integrator utilizes a licensed tool then license should be brought by the System

Integrator, at no extra cost to MP Police. The report formats should be decided in discussion with the MP Police.

The System Integrator shall add/ replace poor quality scanned images/documents on its own, for which it shall not be entitled to get any extra payment. The Unit head may raise this issue during verification. It shall be absolute responsibility of the System Integrator to ensure that the contents of the digitized documents shall be an exact replica of the original paper document maintained as part of the records in the books.

The files / documents will not be allowed to be removed from premises allocated to System Integrator. Suitable hardware infrastructure/facilities have to be established onsite at the premises that shall be allocated to do the digitization work. Under no circumstances shall the documents be changed, mutilated, destroyed or replaced by some other documents.

Once files are returned with URI mentioned on front and back they are to be stored category wise. Within a category, files are to be arranged in chronological order. This shall ensure brisk retrieval when required. Adequate precautions are to be taken to protect manual records from fire, moisture, pests etc.

Once all the files of a Police Unit have been scanned and submitted to unit level Committee; it will certify the same.

- The Digitized data would be migrated District/Unit wise by System Integrator to FMS server after approval of PHQ level Monitoring Committee.

- The migrated data would be randomly reviewed by the PHQ Level/ Zonal Level Committee or an authority deemed fit by MP Police Department for any macro issues.

- A Range/Zonal level committee would do the sample check for quality, completeness of the job, accessibility, reference etc. For PHQ, branches PHQ level committee would do the same.

- The migrated data will be available online to concerned police unit. System Integrator shall share a copy of the district/ Unit wise migrated e-Records with the concerned Unit for final validation. Until the unit gives its approval, the e-Records are not be treated as official.

- Issues pointed out during random review and/or validation are to be mitigated by the System Integrator with support from MP Police Department.

Data Migration Strategy

Some of the Information Technology initiatives have been undertaken within MP Police which themselves have generated computerized data. This data may be used for the ERP project and is recommended for migration to ERP database server.

Personnel Information System

Madhya Pradesh Police has engaged M/s Ramraj Technology Solution Private Limited (RTSPL) for computerization of service record of MP Police Personnel under the Personnel Information System (PIS). Under the concerned contract M/S RTSPL has to perform digitization/ scanning of service record of 75,000 MP Police personnel has to be done on priority within nine weeks from the date of contract signing.

A letter has been issued in this regard by ADG (Administration) on Jan 9th, 2015 to all Police Units for facilitating the scanning/ digitization process when the representatives arrive at the units for the activity. The activity is expected to complete by end of February 2015.

For every 50,000 scanned service records, a random sample 1,000 shall be verified by competent authority of MP Police and the complete lot shall be rejected in case defect is found in more than 1% of the sample and penalties may be imposed.

The Unique number assigned by Treasury Department for salary processing and other payments to MP Police personnel has been taken as the Unique Identifier for service records. In addition to the scanning, the service records are also being digitized.

The Personnel Information System (PIS) aims to digitize service records of all employees of M.P. Police to reduce documentation and to avoid delays caused by manual process. Vendor is expected to study complete back office operations of Administration Branch of PHQ; analyze structured/unstructured data available; analyze current reports/reporting mechanism and come up with final solution through proof of concept. State Data Center is proposed to be utilized for hosting of PIS application and data. The various possible sub-modules are as under: -

1. Employee Leave Details

2. Employee Personal & Official Record

3. Employee Increment Details

4. Employee Award Details

5. Employee Punishment Details

6. Employee Annual Remarks Details

7. Employee Deployment/Re-Deployment (Transfer/Posting) Details

8. Employee Departmental Enquiry Details

9. Transfer Exercise of Police Establishment Board.

10. Employee Training & Exam's Details

11. Making Gradation Lists

12. All deputations outside police department

13. Medal cases

14. Property returns

15. Departmental Examinations

16. Handle Promotions and vacancy positions

17. Process retirement documents

18. Handle training needs

19. To recruit new personnel in service

20. Processing pension

21. Preparation of medical and T.A. Bills

22. Automate intimation of salary, TA, Medical allowance to personnel on email/ SMS

23. Budget management

24. Inventory management

25. E-file and File tracking

26. Service record digitization and scanning

This digitized and verified service record related data shall have to be migrated to FMS data server. Below pattern is to be used as Unique Record Identifier:

Unique number (as assigned by Treasury)/ Subject of file (e.g leave, reward, TA, DE/ Year [YYYY]/ Month [MM])

Centralized State Finance Management System (C-SFMS)

Centralized State Finance Management System (C-SFMS), an application provided by Treasury Department is being used at Administrative offices for payment of salary, TA/ Medical bills, GPF/DPF deductions etc. It is currently used to manage treasury operations by the GoMP. All receipts and expenditure of the state is authorized and recorded in C-SFMS

Currently Budget Controlling Officers (BCOs) are out of the scope of this C-SFMS. DGP is the BCO for Madhya Pradesh Police. The SFMS does not cover budget preparation either for which DOF uses Mudra, an in-house application for preparing budgets. Once is budget has been finalised, the same is credits to unit under various heads by the BCO/

Finance Department from within C-SFMS. The amount remaining under different heads can also be accessed under C-SFMS.

The Financial Module of the proposed ERP solution is to have Read only access to C-SFMS database. This would be limited to the budget allocated/ outstanding in under different heads. It is recommended that System Integrator performs a study to understand C-SFSM application and come up with a technical solution. An escrow server may be created on which required data is taken and later written on to the ERP Database server.

Closed User Group (CUG)

Closed User Groups are groups of mobile telephone subscribers who can only make calls and receive calls from members within the group. MP Police has taken services of M/s Idea Cellular for providing CUG Subscriber Identity Modules (SIMs) to MP Police officials personnel. MP Police Telecommunication Branch is the nodal agency for this project

A server has been setup at Police Head Quarter for where broadcast Short Message Service (SMS) can be sent to CUG users. This contact information may be used within ERP solution for sending SMS notifications for various purpose like Promotion, Transfer notifications and Greetings on reaching milestones in professional and personal life. This may also be used for sending One Time Password (OTP) during ERP system login.

MPPCOMP (Complaints enquiry Software)

The web based application MPPCOMP is especially designed for the Complaint Branch of PHQ, Bhopal (MP). A logo has been devised for it. This application manages the entire process of complaint -in ward and out ward-in an electronic manner. Through the use of this application management of complaint is easy, even it improves the entire life cycle of Complaint with tracking facility. It is customized to have seamless integration with the existing web based modules like CM Helpline,mpsamadhan.org etc. It is highly secured.

Recommendation for PDFA Implementation

PDF/A for e-governance applications

> ➢ Apache FOP 1.1 library can be used in the application logic for dynamically publishing the e-records in PDF/A format.

Apache FOP (Formatting Objects Processor) is a print formatter driven by XSL formatting objects (XSL-FO) and an output independent formatter. It is a Java application that reads a formatting object (FO) tree and renders the resulting pages to a specified output. Output formats currently supported include PDF, PS, PCL, AFP, XML (area tree representation), Print, AWT and PNG, and to a lesser extent, RTF and TXT. The primary output target is PDF.

PDF/A for document creation

- Libre Office 4.0 supports the exporting of a document in PDF/A format.

- MS Office 2007 onwards the support for "save as" PDF/A is available.

- Adobe Acrobat Professional can be used for converting the PDF documents to PDF/A format.

The above recommendations are in line with the guidelines approved by Department of Electronics and Information Technology (DeitY), ministry of communications & information technology (MCIT), New Delhi

Data Digitization Plan

The Digitization activity is recommended to be driven by the Monitoring Committee of Madhya Pradesh Police Headquarter and similar committees at Zonal level and unit level.

During the data digitization activity such committees shall:

1. Work closely with the System Integrator's team.
2. Monitor the data digitization progress and resolving any issues faced by the stakeholders. Such progress reports shall be shared with the said committees on frequency decided by competent authority of MP Police.
3. Direct the System Integrator's team to visit various police units for digitization and concerned police units for facilitating the same.
4. Identify and approve any delays for justifiable reasons while ensuring the quality of work.
5. Work towards speedy verification of e-Records by Police Units.

In 2002, MP Police appointed M/s Suvi Systems for system study and preparation of System Requirement and Specification (SRS) document for Madhya Pradesh Police.

The representatives of M/s Suvi Systems visited a number of MP Police Units and prepared separate documents of each of the visited Police Unit.

The Police Units covered under the project included:
1. RAPTC, Indore
2. Police Station, Juni, Indore
3. CSP Office, Indore
4. Planning and Provisioning Branch (Branch later divided into separate Branches)
5. SAF
6. Traffic Police Station,
7. 15th and 1st Battalion
8. JNPA, Sagar
9. AJK Branch

The documents list the various registers maintained in the respective Unit and also depicts various columns under which data is being captured in the each of the registers.

Department must prepare/compile a fresh list of documents available for digitization.

These documents are recommended to be shared with the System Integrator for reference well before the digitization activity is initiated. Although the registers maintained may have changed to a certain extent over the years, it would still give a good idea about the kind of manual records/ files maintained therein.

System Integrator may itself conduct a study of all the PHQ branches and Police Units like Administration Branch, Planning Branch, Provisioning Branch, an SP Office, SAF Headquarter, a Battalion Head Quarter, a Training Academy/ Institute etc. This study shall be for assessment of the volume, types of manual records to be scanned/ digitized.

The scanning process is to be initiated from MP Police Telecommunication/ Wireless/ Radio Headquarter (RHQ) for below reasons:

1. The Telecommunication Branch HQ of Madhya Pradesh Police is one of the prime Branches in terms of variety of work done which is directly related to the ERP project. These includes Purchase, Account, Inventory management, Training, Human Resource matters (*Establishment*), Workshop, Store, Motor Transport (MT), Planning, Non-Public Fund. It is important that System Integrator's team which is going to perform the scanning activity is aware of various records which are to be scanned and digitized. They would require adequate due-diligence before state wide scanning activity is initiated.

2. The Telecommunication Branch HQ has premises separate from Police Headquarters and each section has been given a set of responsibilities as per a Work Breakdown Structure (WBS). This would be logistically better for the understanding of the System Integrator's team.

3. Its job profile is ideal mix of a PHQ branch, District/unit and field office.

A larger team would perform the scanning activity at RHQ. The team shall have representatives from all the teams which are going to be a part of state wise activity.

A workshop should be conducted in presence of the PHQ level Monitoring Committee. The System Integrator shall give out day wise activities to be performed at RHQ after gauging the quantity of work to be done.

Objectives of initiating the scanning activity with a larger team are:

- ✓ Due-diligence by System Integrator's team for categorization, indexing, generation of Unique Record Identifier (URI) etc.
- ✓ Identification and resolution of issues faced by stakeholders.
- ✓ Assessment/ Revision/ Finalisation of schedule and team size for state level activity and its approval by PHQ level Monitoring Committee.
- ✓ Preparation of Standard Operating procedure for the activity and its approval by PHQ level monitoring committee.
- ✓ Scanning of files at RHQ.

Once above objectives are achieved, the System Integrator shall give a presentation in front of the PHQ level Monitoring Committee and representatives of Zonal Level Monitoring Committee stating the approach towards data digitization and migration.

Scope for data digitization activity:

There would be around 5 crores pages for data digitization in all the units of MP Police. Data digitization would be done at all the units in all the 51 districts of Madhya Pradesh. The vendor would be required to put in at least five dedicated resources at each unit permanently for this activity as described below:

- Supervisor/Clerk –   1
- Pre - processor-   1

- Scanning Machinist- 2
- Quality Checker-   1

The above numbers may change depending upon the unit size/number of documents required to be scanned. MP police would also be required to provide 3 to 7 dedicated resources to support the vendor/SI in data digitization activity. The number of these dedicated resources at each unit may change depending upon the unit size and number of documents required to be scanned. These dedicated resources should be available till end of data digitization activity.

The stepwise efforts required for data digitization may be as described below:

```
┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│ Identify the │──▶│ Indexing the │──▶│  Putting on  │
│     file     │   │     file     │   │   register   │
└──────────────┘   └──────────────┘   └──────────────┘
                                              │
                                              ▼
                                       ┌──────────────┐
                                       │ Handing over │
                                       │    to SI     │
                                       └──────────────┘
                                              │
                                              ▼
                                       ┌──────────────┐
                                       │Pre processing│
                                       └──────────────┘
                                              │
                                              ▼
         If rescan      ─────────────▶ ┌──────────────┐
         is required                   │ Scanning the │
                                       │    image     │
                                       └──────────────┘
                                              │
                                              ▼
┌──────────────┐  If manual      ◆         ┌──────────────┐
│    Manual    │◀─enhancement ─── Check if ◀│ First Quality│
│ Enhancement  │  is required    recan or   │    Check     │
└──────────────┘                 manual     └──────────────┘
       │                       enhancement         │
       │                       is required         │
       │                                           ▼
       │                                    ┌──────────────┐
       └──────────────────────────────────▶│Post processing│
                                            │ or arranging  │
                                            │   the file    │
                                            └──────────────┘
                                                   │
                                                   ▼
┌──────────┐  ┌──────────────┐ ┌──────────┐ ┌──────────┐ ┌──────────────┐
│Approval of│◀│ Checking by  │◀│Handing   │◀│Reindexing│◀│ Checking for │
│  effort   │ │unit committee│ │over back │ │          │ │completeness  │
│           │ │              │ │          │ │          │ │  of file     │
└──────────┘  └──────────────┘ └──────────┘ └──────────┘ └──────────────┘
```

References

Best Practices & Guidelines for Production of Preservable e-Records (PRoPeR)

Uniform Resource Locator (URL):
https://egovstandards.gov.in/sites/default/files/Published%20Documents/Best_Practices_and_Guidelines_for_Production_of_Preservable_e-Records_Ver1.0.pdf

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