CONTENTS
1. Preamble ........................................................................................................................................... 3
2. Background ......................................................................................................................................... 5
3. Form Processing Through ERO-Net .................................................................................................. 6
4. Online Form Processing – In Nutshell ............................................................................................ 7
5. Online Form Processing Details ..................................................................................................... 8
6. Roles .................................................................................................................................................. 9
7. Users and Screens ............................................................................................................................. 10
7.1 Officer 3: Supervisor ....................................................................................................................... 10
8. Alerts and Notifications .................................................................................................................. 12
8.1 Notifications to Supervisor ........................................................................................................... 12
9. Offline Form Processing – In Nutshell ............................................................................................ 13
10. Offline Form Processing Details .................................................................................................... 14
Appendix A: ERO-Net Specifications .................................................................................................. 21
Glossary .................................................................................................................................................. 22
Contact Information & Feedback ......................................................................................................... 23
1. PREAMBLE

The ECI-Net is a system to integrate processes of Election Commission of India (ECI). The system enables National Rollout of the e-Services (NRES) to stakeholders. Electoral process has two distinct components, first is the maintenance of healthy Electoral Rolls (ERs) and second is the efficient conduct of elections. Each of these two components is proposed to be integrated at national level and managed through ECI-Net using Information Technology (IT). ERO Net is for ERs management and RO-Net is for assisting in conduct of elections. ECI-Net also envisages e-office to automate process flow in ECI along with digitization of all information & records. The system will enable extending various services to external stakeholders. The system will also help in improving efficiency and decision making of internal stakeholders.

ERO-Net brings in seamless processing of forms, easy handling of the databases, regular and simpler way of monitoring the ERs activities and maintaining the ERs health.

ERO-Net links all EROs of Nation.

UNPER Unified National Photo Electoral Rolls Data.

NVSP Citizen Electoral services.

The system has three major components,

To provide services on NVSP at national level, data exchange services are deployed at each state. To integrate ERs at national level as Unified National Photo Electoral Rolls Data. The ERs data is managed and maintained on state server by using ERMS of respective states. The ERO-Net system provides a unified ERMS service at national level on secure cloud using UNPER. The data exchange services will still be there to maintain the ERs both at national and state servers. The state servers will have mirror image of latest synchronized data on which all operations related to ERs may be done at state level. The state servers will also act as disaster recovery remote servers for UNPER.
The overall scope of ERO-Net is to develop a web based system for Electoral officials.

**The ERO-NET provides following functionalities in ERs management,**

1. Processing of electoral forms
   - View dashboard for overall processing.
   - Processes and specifications for digitization and scanning.
   - Assigning part number and BLO.
   - Generation of checklist for field verification by BLO.
   - Entering field verification report.
   - Schedule hearing with electors/ objectors or field re-verification.
   - Getting feedback from ERO of previous AC.
   - Sharing outcome of possible repeat entries with ERO(s) concerned.
   - Approve/ Reject forms.

2. Maintain electoral rolls
   - Generation of EPIC and inclusion in electoral rolls.
   - Modification in electoral rolls.
   - Migration/ Deletion in electoral rolls.
   - Generation of various formats (formats 1 to 11A).

3. Polling Stations Management System
   - GIS location of PS.
   - Part & Section boundaries on GIS.
   - AMF Mapping.
   - Part & Section optimization based on ECI guidelines.

**Electoral Services through ERO Net**

- Web Portal (NVSP),
- Mobile App (Android, iOS, Windows),
- SMS gateway,
- E-mail.

**Eelectors and Citizens get following Information on the ER entries**

- Name search, part & Serial No.
- Submit online applications of form 6, 6A, 7, 8, & 8A with supporting documents.
- Tracking the status of filled application including auto alerts.
- Details of Polling Station (PS),
- Details of Assured Minimum Facilities (AMF)
- How to reach your PS using GPS, Google Earth, Google Maps and Key Map.
- Know your Electoral Officers- BLO, Supervisors, Election Officer/ Nayab Tahsildar, AERO/ ERO, DEO & CEO.
- Step by step guide on enrolment & FAQs, Information on legal provisions relating to enrolment.
- Voluntarily furnishing information to ensure health of ER such as contact details, linking family members, un enrolled family members’ details, members going to become eligible for voter ID card (attains age of 18 years) in next summary revision, details of shifting/ absent/ dead of any elector etc.
2. BACKGROUND

The inclusion, shifting/transposition, modification or deletion in the electoral roll is done by submitting ER forms. Applications can be filed online through portal, Mobile Application, SMS, National Call Centre (NCC) or by submitting the filled-in forms to ERO/AERO/BLO of his or her constituency in paper or through electronic submission using NVSP portal.

The inclusion, modification or deletion in the electoral rolls is done by filling and submitting ER forms. Request can come in either electronic or physical form.

In electronic form
- Online Form from http://nvsp.in, or
- Through Mobile App, or
- Through SMS.

In physical form
- Filling up form and submitting to ERO\AERO of his or her constituency.

Different types of forms and their details are as given below,
3. FORM PROCESSING THROUGH ERO-NET

1. Applicant fills form online on NVSP/ Mobile App/ SMS/ or submits physical form.
2. In ERO-Net digitization of offline forms data is done.
3. Alert is sent to user indicating submission of forms.
4. Offline validations and checks are undertaken. Also alert is generated to AERO/ ERO and users indicating the submission/ Scanning of forms including supporting documents. The digitization of images done.
5. The BLO of previous AC does field verification at old address in 7 days and gives feedback as Shifted/ Dead/ No Such person/ still living in the old address.
6. ERO of old AC sends BLO field verification report to new ERO in 14 days. If found shifted from old place, the ER entry is 'Marked for Migration' to new ERO.
7. Election Officer ERO/ AERO checks whether the form is ok to process further.
8. If part IV is filled in Form 6 application - corresponding ERO/ Supervisor/BLO is informed by alert.
9. The Checklist for field verification by BLO is generated.
10. Alert is sent to applicant and concerned Supervisor/ BLO.
11. BLO collects copy of form, supporting documents, and checklist. He does field verification using hard copy of checklist and sends outcome by SMS/ mobile app and sends filled in checklist electronically.
12. The report of BLO is entered by data entry operator.
13. Supervisor checks the form and field verification report, add his/ her remarks and submits to AERO.
14. ERO/ AERO recommends based on inputs, such as documents submitted, field verification report(s), Objections received and remarks of other ERO.
15. ERO rejects/ accepts/ schedules hearing. ERO may order re-verification process as well.
16. Alert is sent to applicant about decision/ schedule of hearing.
17. If ERO accepts the form either new EPIC is generated or old EPIC is retained in case of migration and the record is included in the E-Roll. In case of approved modifications the record in E-Roll is updated.
18. If EPIC is to be printed then Generation of EPIC image (pdf) and link to printer is activated. Alert goes to elector and printer of EPIC.
19. On completion of EPIC printing, alert goes to Elector to collect his EPIC from a designated place/ await delivery by BLO.
20. If Appeal is filed before DEO/ CEO entire data moves to new level & process is repeated.
4. ONLINE FORM PROCESSING – IN NUTSHELL

The applicant submits the form online at nvsp.in and on completion of the same gets the SMS/email alert. Thereafter AERO checks the application for further processing. If ok, AERO assigns part and section number to the form. The BLO is either automatically or manually assigned. BLO can also be reallocated if desired. ERO/ AERO also generates a checklist, which includes demographically matched entries, for BLO to process further. The ERO/ AERO sets target date for BLO to process allocated forms. BLO also takes a physical print of the application as part of package required for field verification. BLO does field verification and executes the checklist. In case age is greater than 25 years, an undertaking is taken from the applicant. BLO makes comments on demographically similar entries and takes signature on physical form from applicant. BLO submits the information to the data entry operator who in turn enters the BLO report, corrections and supporting documents. Supervisor thereafter verifies the checklist and submits it to the ERO/ AERO, who reviews the checklist and gives observation to the ERO. The ERO if approves application, an EPIC is generated and updatations are done in central e-roll. If however ERO rejects the application, information is sent to the applicant about Schedule hearing or for re-initiating the process.
5. Online Form Processing Details

1. Applicant fills form online on NVSP/ Mobile App/ SMS/ or submits physical form.
2. Alert is generated to AERO/ ERO and applicant indicating the submission of forms.
3. The BLO of previous AC does field verification at old address in 7 days and give feedback as: Shifted/ Dead/ No Such person/ still living in the old address.
4. ERO of old AC sends BLO field verification report to new ERO in 14 days. If found shifted from old place, the ER entry is "Marked for Migration" to new ERO.
5. Election Officer ERO/ AERO checks whether the form is ok to process further.
6. If part IV is filled in Form 6 application - corresponding ERO/ Supervisor/ BLO is informed by alert.
7. The Checklist for field verification by BLO is generated.
8. Alert is sent to applicant and concerned Supervisor/ BLO.
9. BLO collects checklist and does field verification using physical checklist. He sends outcome by SMS/ mobile app and submits filled in checklist electronically.
10. The report of BLO is entered by data entry operator.
11. Supervisor undertakes checks and then submits verification report to ERO/ AERO.
12. ERO/ AERO recommends based on inputs, such as documents submitted, field verification report(s), Objections received and remarks of other ERO.
13. ERO rejects/ accepts/ schedules hearing. ERO may order re-verification process as well.
14. Alert is sent to applicant about decision/ schedule of hearing.
15. If ERO accepts the form, updates in E-Roll are done and either old entry with EPIC number migrates to the new place or new EPIC is generated, wherever applicable.
16. If EPIC is to be printed and given then Generation of EPIC image (pdf) and link to printer is activated. Alert goes to elector and printer of EPIC.
17. On completion of EPIC printing, alert goes to Elector to collect his EPIC from a designated place/ await delivery by BLO.
18. If Appeal is filed before DEO/ CEO entire data moves to new level & process is repeated.
6. ROLES
ERO-Net caters to the number of roles of existing ECI officials. ERO-Net takes into consideration following roles at the state level.

- **CEO- Chief Electoral Officer** *(State Level)*
- **DEO - District Electoral Officer** *(District/Sub district Level)*
- **ERO- Electoral Roll Officer** *(AC Level)*
- **AERO- Assistant Electoral Officer** *(Election In-charge at Tehsil/Taluk level)*
- **Supervisor** *(Field officer to oversee BLO activities)*
- **BLO - Booth Level Officer**
- **Data Entry Operator** *(Permanent IT Staff at AERO/ERO office)*
- **Service Providers** - for Data entry/ Digitization and scanning of forms *(SLA/ Vendors)*
7. USERS AND SCREENS

7.1  OFFICER 3: SUPERVISOR

Roles

Supervisor views the verification report, checklist and provides recommendations to AERO with remarks.

After login, Operator gets following screen, which contain two tabs,

Supervisor Home Page

Functionality of these tabs is given as under:

1. Submission to AERO

After clicking on this tab supervisor gets a list of submitted forms under progress, and various states like BLO Appointed, field verified. He/ She can filter list on basis of date/ part number. Forms could be searched on the basis of either form number or EPIC number. After clicking on 'Process' link, applicant's information like his/ her personal details, family details, field verification report could be viewed. Supervisor can add remark and submit form to AERO.
Supervisor Form Process Panel

2. View Progress

This screen displays the progress of forms.
8. Alerts and Notifications

The ERO-Net makes number of operations as per the user input and actions. ERO-Net also issues alerts and notifications on completion of each stage of processing. Depending on the state of the form in ERO-Net, alerts and notifications in the form SMS are issued to the applicant and concerned officials. These system generated alerts & notifications are given in following tables.

8.1 Notifications to Supervisor

<table>
<thead>
<tr>
<th>MiD - 1</th>
<th>Application &lt;no.&gt; in form &lt;no.&gt; has been registered and checklist has been generated. Ready for BLO &lt;part No.&gt; Field verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiD - 2</td>
<td>BLO &lt;part No.&gt; has/ has not submitted report for application &lt;id&gt; /in prescribed time limit.</td>
</tr>
<tr>
<td>MiD - 3</td>
<td>BLO &lt;part No.&gt; has submitted report for application &lt;id&gt; without &lt;reasons/documents&gt;. BLO re-verification required.</td>
</tr>
</tbody>
</table>
9. **Offline Form Processing – In Nutshell**

Physical forms from different locations arrive at the ERO office. Data Entry Operator at ERO office fills the count of received forms according to form count and AERO allocates jobs for the data entry operators. AERO thereafter generates QR code data file and assigns SLA for printing and affixing QR codes. These QR codes affixed forms are given to the SLA for scanning. SLA handovers digitized copy of the forms to AERO. The Data Entry Operator uploads digitized forms to ERO-Net one by one manually. Thereafter digitized offline forms are processed as per online processing.
10. Offline Form Processing Details

Offline forms

Offline forms are the physical forms received and digitized at ERO office. These digitized forms are maintained into the ERO-Net and processed thereafter in same way as the online forms.

Offline form processing steps

- Physical forms are received at ERO office from different locations like: designated locations, BLOs, Special Camps, BLAs/ political parties, direct submission by citizens and from DEO, CEO, ECI etc.
- Data entry operator manually fills the forms’ type count in ERO-Net date wise.

Offline Form Processing 'Dashboard'

- When sufficient numbers of forms are available at ERO office, AERO manually allocates jobs to data entry operator for digitization of forms.
- Data entry operator fills the form online in ERO-Net. Following is the method of filling up form fields according to the form type:
  1. For first time enrolment request in form 6, 6A - All relevant fields need to be filed.
2 For existing elector,
   - Fetching of all record from existing database except address for form 6 & 8A.
   - Fields requested for correction for form 8,
   - For existing elector, Objectors’ details for form 7.

3 In case of mismatch between EPIC fetched details and those furnished in the form, enter all details and verify/match with the EPIC for the details if any.

- The filled forms are submitted to ERO-Net. The QR code is generated and saved for the submitted forms. Dashboard will now reflect the actual digitized forms count date wise.
- AERO assigns SLA and download “QR code data file”. QR code data file contains all forms details between selected dates by ERO/AERO for a form type.

'Assign SLA' Option in Dashboard

'Assign SLA' Screen
Download QR Code Data File

- AERO can view already SLA assigned “QR code data file” and download them whenever needed.

- In the ERO office QR codes are printed and affixed on the form and supporting documents. AERO hands over ‘QR code data file’ and their corresponding physical forms to SLA for printing of QR codes.

  Note: AERO also maintains a record of physical forms, given and received.

- SLA/ Data Entry Operator prints QR code using 'QR code printing software'. The printed QR Code is then affixed on bottom right corner of each page of physical form and it's supporting documents. See Appendix A for more details on 'QR Code Printing Software'.
QR Code Printing Software - Populate Form Data

Applicant’s Details in QR Code Printing Software

- QR code affixed forms given to the SLA for scanning.
QR Codes and Printer
FORM 6
[See rules 13(1) and 26]

Application for inclusion of name in electoral roll

To
The Electoral Registration Officer

....................Assembly/ Parliamentary Constituency.

Sir,
I request that my name be included in the electoral roll for the above Constituency. Particulars in support of my claim for inclusion in the electoral roll are given below:

I. Applicant’s details

<table>
<thead>
<tr>
<th>Name</th>
<th>Surname (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swati</td>
<td>Matta</td>
</tr>
</tbody>
</table>

Age as on 1st January ...2916...# Years: 25 Months: 10 Sex (male/female/others): F

Place of birth:

Village/ Town: Ajmer

District: Ajmer

State: Rajasthan

* Father’s/ Mother’s/ Husband’s Name

Name: Rajeev

Surname (if any): Matta

II. Particulars of place of present ordinary Residence (Full address)

House/ Door number: Plot No.55, Seeta Kunj

Street/ Area/Locality/ Mohalla/Road: Ashok Nagar, Range Hills Road

Town/ Village: Pune

Post Office: Shiva Ji Nagar

Pin Code: 411005

Tehsil/ Taluka/ Mandal/ Thana:

District: Pune

III. Details of member(s) of applicant’s family already included in the current electoral roll of the Constituency:

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship with applicant</th>
<th>Part number of the roll of the Constituency</th>
<th>Serial number in that Part</th>
<th>Elector’s Photo Identity Card Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rajeev</td>
<td>Father</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Renu</td>
<td>Mother</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

£ In case of Union territories having no Legislative Assembly and the State of Jammu & Kashmir.

# Please give the year i.e. 2007, 2008, etc.

* Strike out the inappropriate alternative

Sample Form 6 with QR Code
• SLA scans all forms and supporting documents as per scanning guidelines. *For more details refer Scanning Guidelines Document.*

• SLA crops the photograph and handovers digitized documents to the AERO.

• AERO checks the quality of scanned document using ‘Scan Quality Checker Software’ and prepares report. Completed forms are then ready for uploading. *See Appendix B for more details on ‘Scan Quality Checker Software’.*

  ![Scanning Quality Checker Software](image)

  Scanning Quality Checker Software

• AERO sends report of rejected files and physical forms to the SLA for corrections.

• Data Entry Operator uploads the forms one by one manually. Dashboard will now reflect the actual uploaded forms and **further processing of the form is as per online form processing.**
APPENDIX A: *ERO-NET SPECIFICATIONS*

Domain: [http://Ecinet.in/eronet](http://Ecinet.in/eronet)

- Site is best viewed in Latest version of Chrome, Mozilla Firefox with resolution greater than 1280 by 1024 pixels

**QR Printer Specifications**

- Resolution - 200 DPI and above
- Type - Thermal Transfer and Direct Thermal
- Speed - 4"/sec and above
- Print width - 4"

- QR Module Size Support: QR version 1 to 20
- Minimum Module Size: 21x21
- Maximum Module Size: 97x97
- Error Correction Levels: L, M, Q, H

Recommend is TSC – TTP244 Pro printer however other QR code printers can be used from Citizen, Godex, Toshiba, TSC etc

(Citizen CLE 720 (203 dpi), Citizen CLE 730 (300 dpi), CITIZEN CLS-621, CITIZEN CLS-631, Godex RT 700 Desktop, Godex RT 700i Desktop, Godex EZ-1100 Plus, CITIZEN CL-S700, CITIZEN CL-S703 Barcode Label Printer)

**Sticker Paper**

Polyester labels which are non tear able are recommended.

**Printer Ribbon**

Thermal transfer ribbons are of three types

- **Type-1 Wax Ribbons** – used for most economical printing. Print labels are less durable against scratch, chemical and environmental resistance.
- **Type-2 Wax & Resin Ribbons** – printing with wax/ribbons takes place at higher heat or energy setting. Print labels are more durable and good resistance.
- **Type-3 Resin Ribbons** – Most expensive thermal ribbons. This gives print labels long life in harsh environment.

Recommend are Wax & Resin (Type 2) Ribbons for our application.
# Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO</td>
<td>Assistant Electoral Roll Officer</td>
</tr>
<tr>
<td>AMF</td>
<td>Assured Minimum Facilities</td>
</tr>
<tr>
<td>AC</td>
<td>Assembly Constituency</td>
</tr>
<tr>
<td>BLO</td>
<td>Booth Level Officer</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Electoral Officer</td>
</tr>
<tr>
<td>DEO</td>
<td>District Election Officer</td>
</tr>
<tr>
<td>ECI</td>
<td>Election commission of India</td>
</tr>
<tr>
<td>ERMS</td>
<td>Electoral Roll Management System</td>
</tr>
<tr>
<td>ERs</td>
<td>Electoral Rolls</td>
</tr>
<tr>
<td>ERO</td>
<td>Electoral Roll Officer</td>
</tr>
<tr>
<td>EPIC</td>
<td>Elector’s Photo Identity Card</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information System</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>NCC</td>
<td>National Call Centre</td>
</tr>
<tr>
<td>NRES</td>
<td>National Rollout of e-Services</td>
</tr>
<tr>
<td>NVSP</td>
<td>National Voter’s Services Portal</td>
</tr>
<tr>
<td>PS</td>
<td>Polling Station</td>
</tr>
<tr>
<td>PC</td>
<td>Parliamentary Constituency</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Messaging Service</td>
</tr>
<tr>
<td>UNPER</td>
<td>Unified National Photo Electoral Rolls Data</td>
</tr>
</tbody>
</table>
CONTACT INFORMATION & FEEDBACK

For more information please contact: eronet-feedback@cdac.in