Implementation of e-PPO over IR

The document explains about methodology for Implementation of Revised version of e-PPO

Version 2.0

Release Date: 08.05.2020



Centre for Railway Information Systems Chanakyapuri, New Delhi - 110021

Contents

Chapter 1. Overview	. 3
1.1 Signatory Authorisation & Registration	. 3
1.2 Process-flow for e-PPO	. 4
1.3. Pre-Requisite	. 5
Chapter 2: Signatory Authorisation	. 6
Chapter 3: Installation of Digital Signing (CRISSigner) Utility	10
3.1 Prerequisite	10
3.2 Installation	11
3.3 Trust Setting	16
Chapter 4: Signatory Registration	18
Chapter 5. Working with e-PPO	21
5.1 Verify Clearance	21
5.2 Forward to Headquarter	23
5.3 Headquarter Verify	24
5.4 Send to Bank	26
Chapter 6: Frequently Asked Question	29
Chapter 7: Support	30

Chapter 1. Overview

Currently, PPOs are generated for 21 banks through IPAS, out which e-PPOs are being sent to 16 banks. e-PPO was introduced in IPAS in 2018. As per current process of e-PPO, PPO data in XML and PDF are bundled in a Zip file. Zip file is then signed by Zonal headquarter and signature (.SIG) file and Zip (.zip) file are being sent to respective bank's CPPC through SFTP.

As per Board's advise, a revised version of e-PPO has been developed and the same has been tested by SBI. As per new version of e-PPO, CRIS will push encrypted ePPO File (Zipped) in respective CPPC folders of the Bank's server. Zipped file will contain following 3 files:

- i. e-PPO (pdf), digitally signed by respective division and Zonal Headquarter
- ii. e-PPO data file (in xml), digitally signed by Zonal Headquarter
- iii. Undertaking of employee, as scanned file (pdf)

1.1 Signatory Authorisation & Registration

IPAS has provision of following 2 types of authorisation :-

- i. Digital signing on e-PPO at Accounting unit (division, workshop, Headquarter etc.)
- ii. Counter Signing (Digitally) on e-PPO by nominated official of Zonal Headquarter

Officials nominated for Counter signing e-PPO will perform following activity from a single screen:-

- a)Counter Signing (Digitally) on e-PPO (PDF file)
- b) Digitally signing of PPO data (in XML file)
- c) send digitally signed e-PPO to Bank electronically

Steps for Signatory authorisation and self registration of Digital Signature is as below:-

- i. The Accounting Unit will nominate the signatories for digitally signing the e-PPO. Each accounting unit may have single/multiple signatories for signing ePPO. However, anyone of them can sign the ePPO digitally. The nominated signatories will be authorised first in IPAS by Accounting unit Administrator (Sr. DFM). Detailed process of Signatory Authorisation is available in Chapter 2.
- ii. Zonal Headquarter will nominate the signatories for countersigning the e-PPO. Each Zonal Headquarter may have single/multiple signatories for counter signing ePPO. However, anyone of them can counter sign the ePPO digitally. The nominated signatories will be authorised first in IPAS by Zonal Administrator (Sr EDPM/CIO/Dy CAO G). Detailed process of Signatory Authorisation is available in Chapter 2.
- iii. Once authorised, these officials will install the signing utility on their PCs and register themselves using their digital token. The utility for signing the document is available in IPAS, which can be downloaded by users from Help→Download →Manual/Utility menu option.
- iv. During registration, system will capture public key from the digital token.

- v. Single file for changes in the signatory list at IR level along with Public key of the authorised signatories will be pushed by IPAS to banks on daily basis.
- vi. Bank will capture and process the signature file.
- vii. Bank will provide Acknowledgement/Feedback on each signatory.
- viii. Signatory will be allowed to sign the e-PPO (pdf/XML) only after positive acknowledgement is received from the bank.

1.2 Process-flow for e-PPO

Process-flow for e-PPO implementation is as under:-

- 1. Personnel department prepares pensioner's following details and forwards it to Pension Section of Accounts:
 - i. Personal details based on Bio-Data
 - ii. Enters additional required information such as Qualifying Service etc.
 - iii. Uploads Photo (,jpg), Signature (.jpg) and scanned copy of "Letter of Undertaking (LOU)" (.pdf)
- 2. Based on the details received from Personnel (Executive) department, details will be verified by Accounts Assistant (Level 1 user) of Pension Section. In case of any issue, the case will be returned to Personnel department. If found in order, then User (Level 1) will enter/correct required details and Save it. Saving the details will generate PPO number.
- 3. Level 1 user may edit the data any number of times before confirming it. Once Confirmed, PPO details are Frozen.
- 4. Authorised user (AL1, AL2 or AL3) will verify clearances and generate e-PPO. This will create following files:
 - i. e-PPO in PDF
 - ii. e-PPO Data in XML
- 5. Authorised signatory of e-PPO at unit will verify the documents (e-PPO PDF, e-PPO Data in XML, LOU PDF) and then forward it to Zonal Headquarter. While forwarding to Zonal Headquarter, system will ask for Digital Signature. User signs PDF digitally.
- 6. Zonal Headquarter will verify the details (e-PPO PDF, e-PPO data in XML, LOU PDF) and will digitally sign following files:
 - i. PPO PDF (countersign)
 - ii. PPO Data in XML File
- 7. Once signed, the e-PPO will be sent to respective CPPC. While forwarding it, system takes following action:
 - i. bundles the following file in Single Zip file:
 - a) PPO PDF digitally signed by Accounting unit and counter signed by Zonal Headquarter

- b) Digitally signed PPO data in XML file
- c) Scanned copy of Letter of Undertaking (LOU) in PDF file
- ii. Encrypts the Zip file with Publickey of Bank and makes .encfile
- iii. Encrypted (.enc) file is pushed to respective Bank's server
- 8. Bank will decrypt the file, unzip it and then process XML data, verify undertaking and digitally signed e-PPO.
- 9. Bank shares status of e-PPO (Accepted/Rejected) to IPAS.

1.3. Pre-Requisite

To initiate implementation of e-PPO, following needs to be ensured:-

- 1. Sufficient number of signatories are registered in IPAS. e-PPO will require digital signature by 1 signatory in Accounting unit countersigned by 1 signatory at Headquarter.
- 2. Digital Signature Certificate (DSC) has sufficient validity. Digital Certificates need to be procured well in advance before it is expired.
- 3. CRISSigner utility has been installed on the PCs of the signatories. CRISSigner utility has been made available under "Help" module of IPAS. User has facility to start/stop CRISSigner service. For signing the payment files, it is necessary that CRISSigner Service is running in the background.
- 4. All concerned officers have been assigned appropriate privileges of ePPO in IPAS.

In case of any issue related to pension disbursement, the escalation matrix is as under:-

Escalation level	E-Mail id	Name & Mobile Number
L1 Support		
L2 Support		

Chapter 2: Signatory Authorisation

2.1 Based on official authorisation, IPAS Administrator will authorise nominated Signatories in IPAS using following menu option in IPAS:-

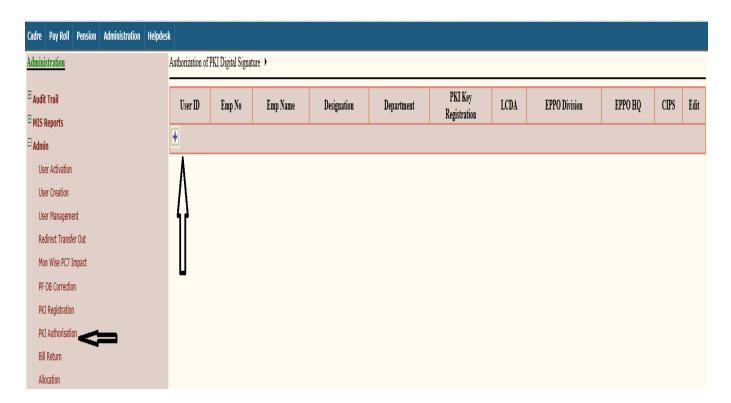
Administration → Admin----> Signatory Authorisation

System will display list of current signatories authorised for any of the following area:-

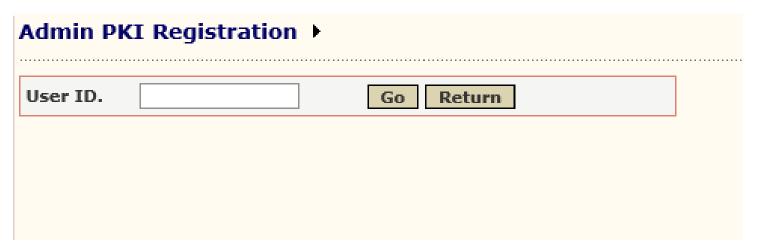
- e-PPO (Unit level signature)
- e-PPO (Headquarter Counter Sign)
- Letter of Credit (LC)
- Centralised Integrated Payment Solution (CIPS)

To add a new Signatory, click "+" button

To edit (grant/revoke) authorisation to existing signatories, click "Edit" button



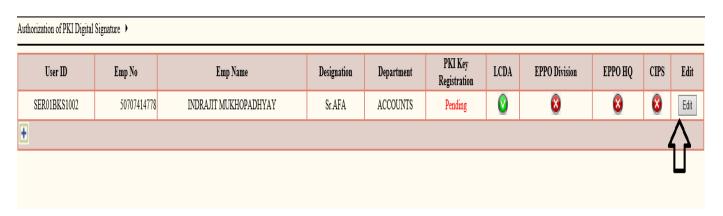
i. In case user clicks "+" button to add New signatory, following screen is displayed:-



- ii. User enters the user id of the signatory and clicks "GO" button.
- iii. User ID is verified by system. Only Gazetted Officer are permitted. Based on User-id, System displays details of the user. System also asks Administrator to select among following functionalities for which authorisation is to be given to signatory for digitally signing the document/data:
 - i. e-PPO (Unit level signature)
 - ii. e-PPO (Headquarter Counter Sign)
 - iii. Letter of Credit (LC)
 - iv. Centralised Integrated Payment Solution (CIPS)

Admin PKI Registration → Return User ID. SER01BKS1002 Emp No: 50707414778 **Bill Unit** 0701001 Emp Name : INDRAJIT MUKHOPADHYAY BU Desc ACCTS/GAZ Designation Category Gazzetted Sr.AFA Status N Depatrment ACCOUNTS Authorization: LCDA Select ∨ EPPO Division Select 🗸 EPPO HQ(Counter Sign) Select 🗸 Select 🗸 CIPS Authorize

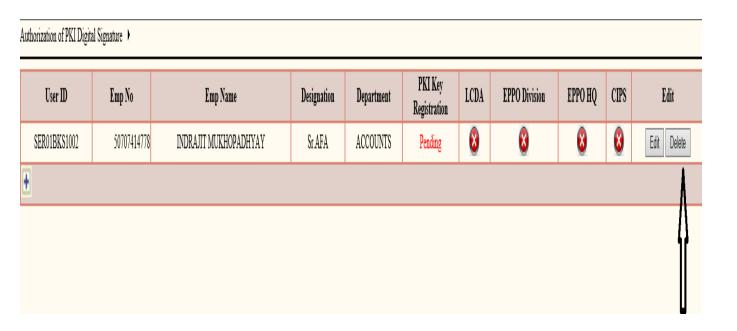
- v. Administrator has to ensure that proper approvals are available before authorising signatories in IPAS.
- vi. Administrator clicks "Authorize" button.
- vii. System saves the authorisation details and displays the revised list of signatories as below:



viii. Authorisation details can be edited by Administrator by clicking "Edit" button and fresh set of Authorisation as below:-

PKI Authorization Edit 🕨							
User ID. SER01BKS1002							
Emp No :	50707414778	R		Bil	l Unit	0701001	
		INDRAJIT MUKHOPADHYAY				ACCTS/GAZ	
Designation				Ca	tegory	Gazzetted	
Depatrment	ACCOUNTS						
Authorizatio	n:						
LCDA		Yes	~				
EPPO Divis	ion	No	~				
EPPO HQ(C Sign)	Counter	Yes	~		:	Save Return	
CIPS		No	~				

ix. To delete User ID from list, administrator must remove all authorization from user. Then delete button will appear corresponding to user id as below:-

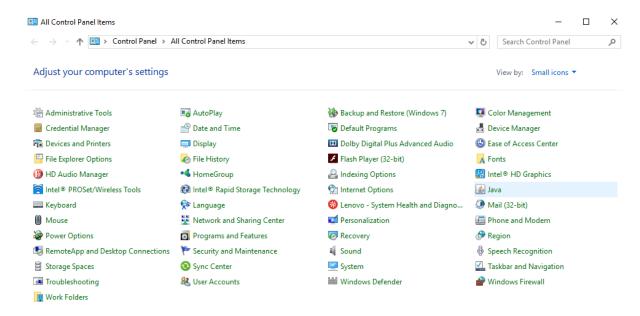


Chapter 3: Installation of Digital Signing (CRISSigner) Utility

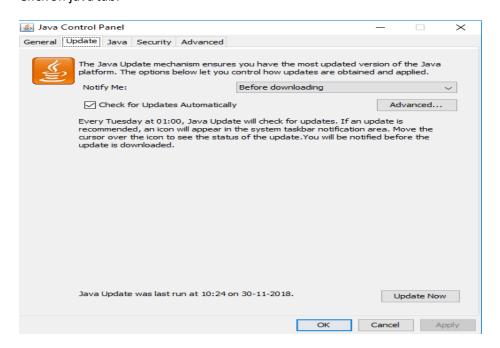
3.1 Prerequisite

Install latest version of java. Steps are as under:-

i. Go to control panel of system.



ii. Click on java tab.



- iii. Check the check box for automatic update.
- iv. Check the java version in java tab of window.

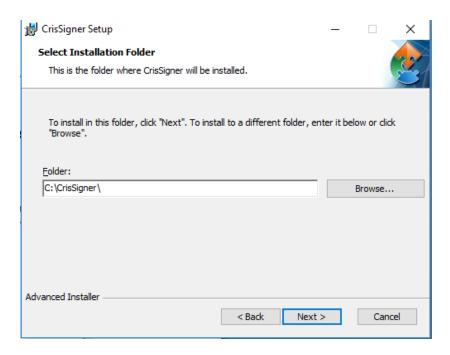
v. If java version is not latest, then click to update now button for java update (System should be connected to internet).

3.2 Installation

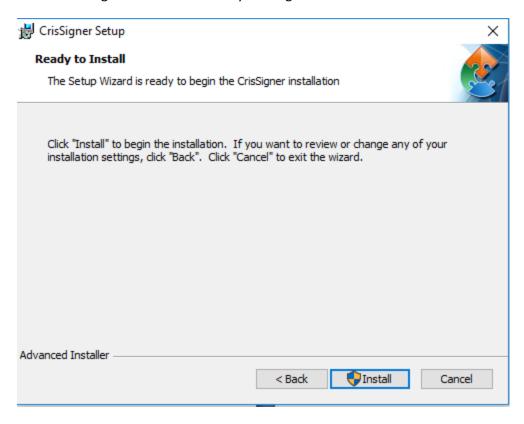
- i. Download CrisSigner.zip file in your system.
- ii. Unzip CrisSigner.zip on your system.
- iii. Install unzipped file CrisSigner.msi file on your system.
- iv. To Install Double-click the CrisSigner.msi executable file.



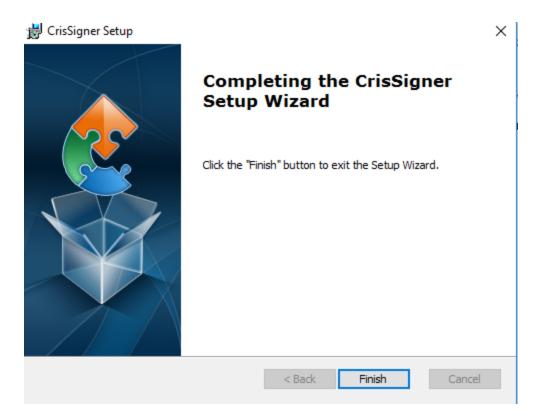
v. Click to Next button.



1. User can change Installation folder by clicking Browse button and clicks to Next button.



vi. Click to Install button as shown.

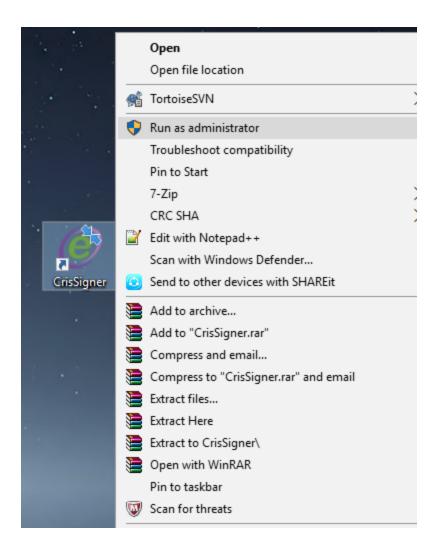


Click to Finish button to complete the Installation.

vii. After Installation, an icon of CrisSigner will appear on desktop as shown.



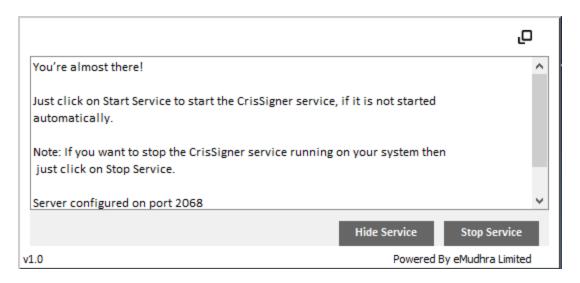
viii. Run the CrisSigner (Using Run As Administrator)



ix. A Message indicating the start of CrisSigner service is displayed. Click the OK Button



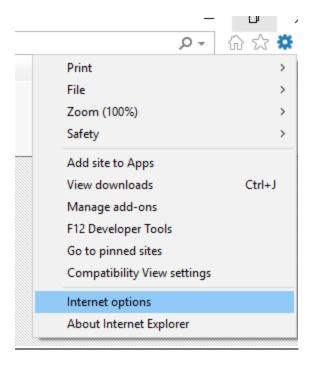
x. On successful setup, Digital Signer window is displayed.



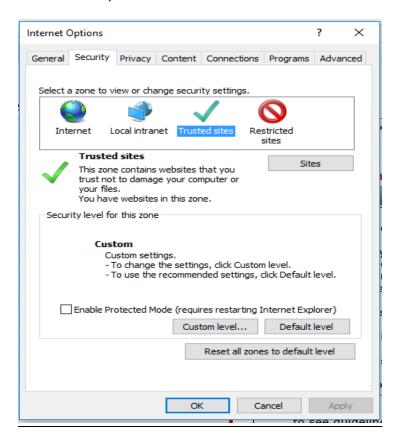
xi. Click to Hide Service or Top-Right corner arrow to minimize the window in Task Bar Tray of computer.

3.3 Trust Setting

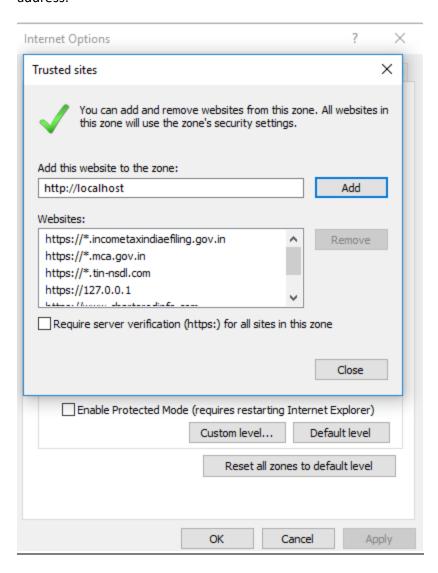
i. Click to tools option of Internet Browser. Select Internet Option from popup window.



ii. Click to security tab and click to trusted sites icon.



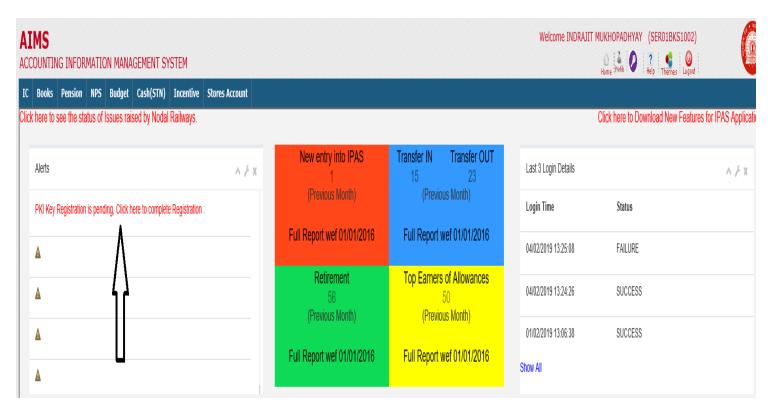
iii. Click to Sites button as shown above. A popup window appears consisting trusted site web address.



iv. Type http://127.0.0.1 on given textbox and clicks to add button to add in trusted website list.

Chapter 4: Signatory Registration

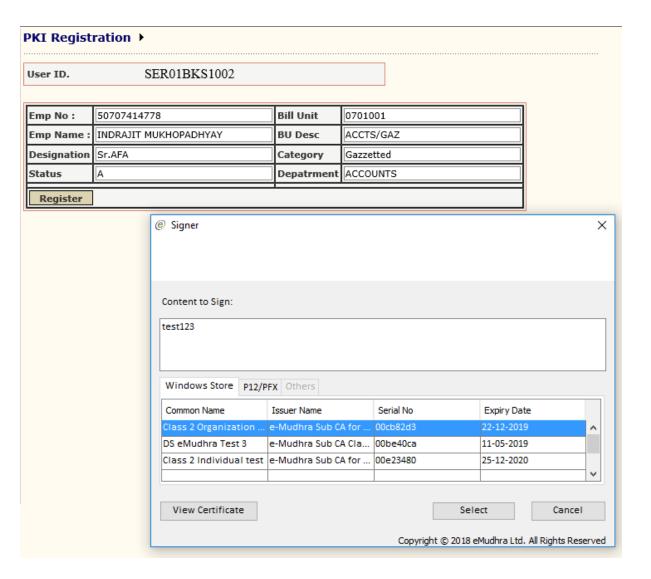
i. Once authorised by Administrator, an alert for Pending Registration is shown to the signatory on dashboard (home page) of IPAS as below:-



- ii. Signatory may register himself/herself by clicking on the alert/message. To register, signatory has to ensure:
 - a. He/she has obtained a valid Digital Signature Certificate (DSC) and the same has been attached to USB port.
 - b. Driver of DSC has been installed on Computer and digital token is accessible.
 - c. **CrisSigner** Utility has been installed on computer and it is running state.
- iii. By clicking on the link of alert message, following screen is displayed to the signatory:-

PKI Registration > User ID. SER01BKS1002 Emp No: 50707414778 Bill Unit 0701001 Emp Name: INDRAJIT MUKHOPADHYAY BU Desc ACCTS/GAZ Designation Category Gazzetted Depatrment ACCOUNTS Α Status Register

- iv. Signatory has to verify his/her details and click "Register" button
- v. System displays the list of digital signatures accessible to system. User selects the appropriate digital key from list and click to "Select" button.



- vi. System registers the signatory. Signatory's public key is captured by IPAS and stored in its database.
- vii. On daily basis, details of signatories along with individual Public key are pushed by IPAS to SBI.
- viii. SBI to validate/process the proposed addition/deletion and push Acknowledgement on each signatory to IPAS. Signatory will be allowed to sign the e-PPO in IPAS only after positive acknowledgement is received from bank.

Chapter 5. Working with e-PPO

Login to IPAS application and click on "Pension" module. Facility of e-PPO is available under Pension module, which has provision for following functionalities:-

- i. Verification of Clearances
- ii. Digital Signing the e-PPO by respective unit and Forwarding it to Headquarter
- iii. Countersigning by Headquarter
- iv. Sending the digitally signed e-PPO along with Signed data (.xml) file and Letter of Undertaking to Bank

The details of the above functionalities are as under:-

5.1 Verify Clearance: This option is for indicating various clearances and generation of e-PPO PDF file and PPO data file (XML format). Steps are as under:-

- i. Pension user authorised for e-PPO will click "Verify Clearance" menu option provided under e-PPO.
- ii. System will ask to select for Bank and Month of retirement of employees.
- iii. User selects Bank from the list of Banks, which are accepting e-PPO of Railways. User enters Month of retirement in YYYYMM format and clicks "Go" button.
- iv. System display list of PPOs as forwarded by Personnel department and confirmed by Accounts department for the employees retired in the selected month and pertains to selected bank.
- v. Based on the clearances like No Dues, Vigilance etc., user ticks appropriate checkboxes and clicks "Generate" button.
- vi. System generates e-PPO for those employees whose all clearances (NDC, Vigilance, All) are ticked. Generated e-PPOs (in pdf format) and PPO data (XML) are saved in IPAS.

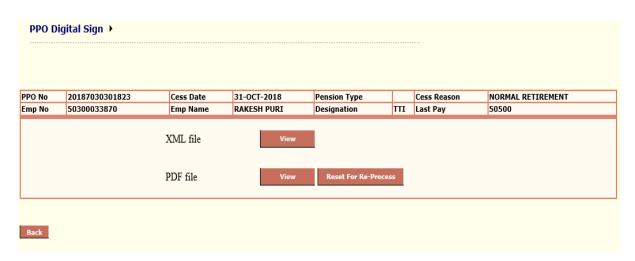
The following screen shows the above process:-

Pension Personnel	Ac	counting Unit	for TEST D	ELHI DI\ V	ink Bank	SBIN 🗸	Year Mo	nth	201810		GO	
⊞ Pension Bills	List											
■ View Pension Detail	S.No.	PPO Number	Emp No	Name	Designation	Last Pay	Cess Date	Pension Type	Cess Reason	NDC	Vigilance Clearance	All Cleared
⊕ Pension Accounts	1	20187030301823	50300033870	RAKESH DURT	тт	50500	31-OCT-2018	туре	NORMAL	✓	✓ .	V
⊞ Post-2006				RAM SHARAN					RETIREMENT NORMAL	_	_	
⊕ PRE-2006	2	20187030301829	50302858060	SINGH	TECH-I	41600	31-OCT-2018		RETIREMENT	✓	✓	✓
⊕ Query	3	20187030301830	50302993600	SOM PAL	FITTER (MCM)	43600	31-OCT-2018		NORMAL RETIREMENT			
⊕ ARPAN □ e-PPO	4	20187030301837	50303377880	SATBIR SINGH	PORTER(COML)	36100	31-OCT-2018		NORMAL RETIREMENT			
Verify Clearance	5	20187030301840	50390527385	SURENDER KUMAR NARANG	SS	78800	31-OCT-2018		NORMAL RETIREMENT			
Forward To HQ HQ Return	6	20187030301844	50302824735	BANSHIDHAR SINGH	SR. TECH	55200	31-OCT-2018		NORMAL RETIREMENT			
HQ Verify Upload SIG	7	20187030301846	50304725323	HARI SHANKAR DUBEY	FITTER (MCM)	41100	31-OCT-2018		NORMAL RETIREMENT			
Report	8	20187030301848	50302858228	HARPAL SINGH	SR. TECH	46200	31-OCT-2018		NORMAL RETIREMENT			
Reports	9	20187030301855	50300565095	MOHAN VARSHNEY	SSE (TELE)	87700	31-OCT-2018		NORMAL RETIREMENT			
⊞ Reports	10	20187030301866	50302573120	SITA RAM SAH	FITTER (MCM)	52000	31-OCT-2018		NORMAL RETIREMENT			
	11	20187030301867	50302826707	GIRRAJ SINGH	T.W. DRIVER-I	57500	31-OCT-2018		NORMAL RETIREMENT			
	12	20187030301868	50303267519	TILAK DHARI	KHALASI	39800	31-OCT-2018		NORMAL RETIREMENT			
	13	20187030301872	50303384275	KAMLESH	RRB	34000	31-OCT-2018		NORMAL RETIREMENT			
	14	20187030301875	50303368488	NETRA PAL	POINTSMAN-B	38600	31-OCT-2018		NORMAL RETIREMENT			
	15	20187030301880	50313742176	SULEKH KUMAR	LP (GOODS)	60400	31-OCT-2018		NORMAL RETIREMENT			

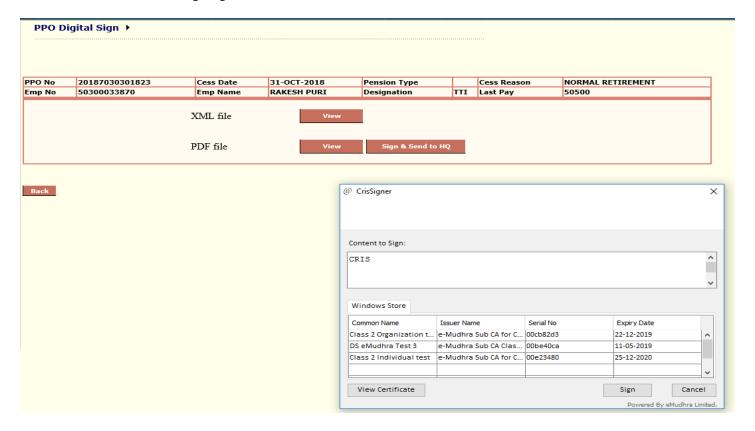
- **5.2 Forward to Headquarter**:- This option is for digitally signing the e-PPO and forwarding it to Headquarter for Countersigning. Steps are as below:
 - i. Pension user authorised for e-PPO will click "Forward to Headquarter" menu option provided under e-PPO.
 - ii. System will ask to select for Bank and Month of retirement of employees.
 - iii. User selects Bank from the list of Banks, which are accepting e-PPO of Railways. User enters Month of retirement in YYYYMM format and clicks "Go" button.
 - iv. System display list of e-PPOs as below.



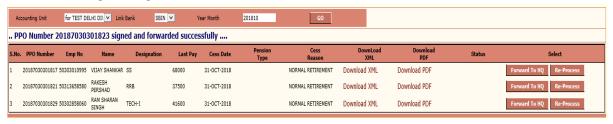
- v. User can download e-PPO (in pdf format) and data file (in xml format) and verify it.
- vi. In case any discrepancy is observed, it can be returned by clicking "Re-process" button. The following screen is displayed, where user clicks "Reset for Re-process" button to return the e-PPO in clearance stage.



- vii. In case e-PPO is found to be in order, user has to click "Forward to HQ" button for digital signing the e-PPO and sending it to Headquarter for countersigning.
- viii. On click of "Sign & Forward to HQ" button, system redirects to Digital Signing screen of ePPO. System displays list of digital certificates accessible to system for digital signing as below:-



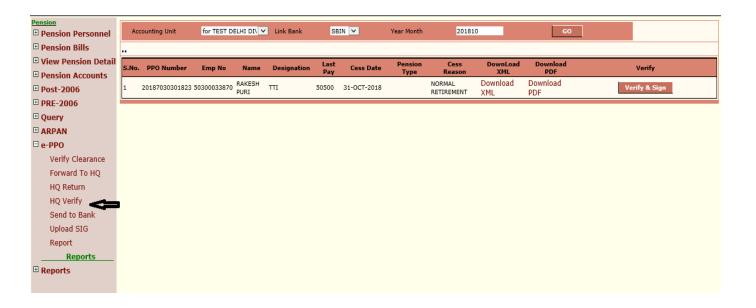
- ix. User selects the digital certificate from list and clicks to "Sign" button.
- x. System digitally signs the PDF document and sends to HQ for counter signing. The following message is shown on the screen:



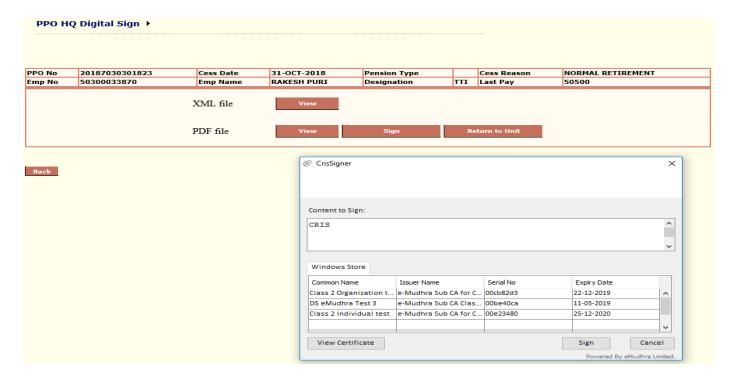
5.3 Headquarter Verify:- This option is for verification of e-PPO by Headquarter. E-PPOs digitally signed by the respective units are received at Headquarter. If Headquarter finds e-PPO in order then countersigns it and send it to bank. Steps are as below:-

- Pension user authorised for e-PPO will click "Headquarter Verify" menu option provided under e-PPO.
- ii. System will ask to select for Bank and Month of retirement of employees.

- iii. User selects Bank from the list of Banks, which are accepting e-PPO of Railways. User enters Month of retirement in YYYYMM format and clicks "Go" button.
- iv. System display list of e-PPOs (digitally signed by units) received at headquarter as below.

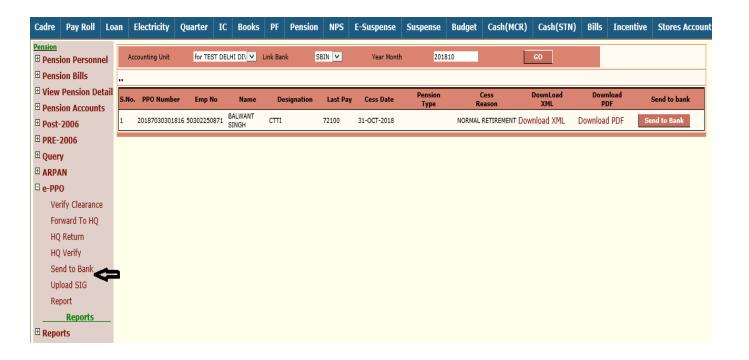


- v. HQ can download e-PPO for verification from given link. For any discrepancy HQ can return PPO to Unit by clicking "Return to Unit" button.
- vi. If e-PPO is found in order by headquarter, authorised user clicks to "CounterSign" button, system displays list of digital certificate accessible to system for digital signing. User selects the digital certificate from list and clicks to "Sign" button as below:-

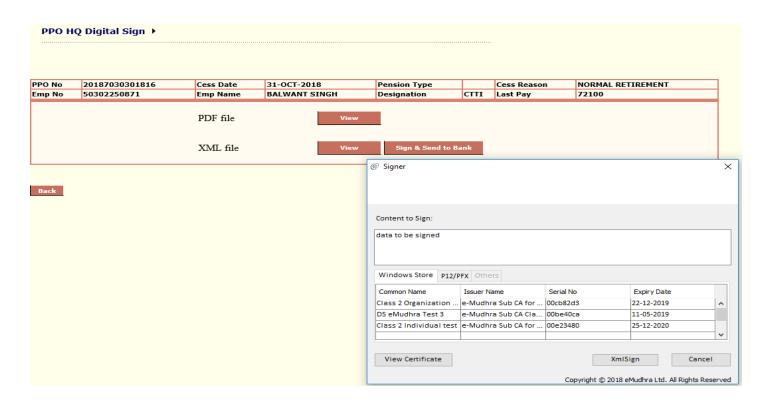


5.4 Send to Bank:- This option is for sending the e-PPO (digitally signed by units and countersigned by headquarter) to Bank. During this process, data file (in.xml format) is signed by the official authorised for countersigning the e-PPO and required files are sent to Bank. Steps are as below:-

- i. Pension user authorised for countersigning e-PPO will click "Send to Bank" menu option provided under e-PPO.
- ii. System will ask to select for Bank and Month of retirement of employees.
- iii. User selects Bank from the list of Banks, which are accepting e-PPO of Railways. User enters Month of retirement in YYYYMM format and clicks "Go" button.
- iv. System display list of e-PPOs (digitally signed by units & countersigned by Headquarter) as below:-



- v. Authorised user verifies the e-PPO and data (xml) file. If found in order, then the user clicks to "Send to Bank" button.
- vi. System displays list of digital certificate accessible to system as below:-

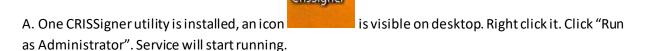


vii. User selects the digital certificate from list and clicks to "Sign & Send to Bank" button.

- viii. System bundles the following files in a zip file:
 - a) e-PPO pdf file (digitally signed by unit and counter signed by Headquarter)
 - b) e-PPO data file in xml format (digitally signed)
 - c) scanned copy of undertaking from pensioner (pdf)
- ix. System encrypts the above zip file using Bank's Public key.
- x. System then pushes this encrypted file to respective bank's server using SFTP (Secured File Transfer Protocol).

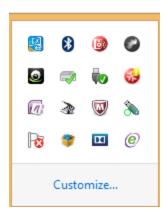
Chapter 6: Frequently Asked Question

Q1: How to run CRISSigner Service.



Q 2. How to check whether CRiSSigner service is running?

A.: In order to digitally sign a documet through IPAS, It is necessary that CRISSigner Service is running in the background. The Service is shown as icon in the taskbar/bottom right corner of the screen. An image of the icons shown in taskbar is as below:



Click the icon for CRISSigner service. It will open a window as below, from where Service can be stopped.



Based on feedback/experience during e-PPO implementation, more FAQs will be added

Chapter 7: Support

List of Officials to provide Support during e-PPO implementation in Railways/Units

Sr. No.	Zone/Unit	L1 Representative
1.	CR	Rohit Singh (7400067746)
2.	ER	Dibyendu Sarkar (9831750304)
3.	NR	Amit Kumar Mall (8130797695)
4.	NER	Sanjeev Singh (8130797563)
5.	NFR	Goutam Chakrobarty (7044474056)
6.	SR	P Sivakumar (7338827303)
7.	SCR	E Sai Sekhar Reddy (7995373308)
8.	SER	Goutam Chakrobarty (7044474056)
9.	WR	Robert U Dsouza (7400067749)
10.	ECR	Devendra Kumar Singh (8595925847)
11.	ECoR	Anup Kumar Chaudhary (9439654164)
12.	NCR	Pankaj Gupta (8130719735)
13.	NWR	Naveen Prakash (9910115361)
14.	SECR	Aparna Khandekar (9987582810)
15.	SWR	Ramakrishna Babu (9448590371)
16.	WCR	Aparna Khandekar (9987582810)
17.	Metro-Kolkata	Goutam Chakrobarty (7044474056)
18.	CLW	Dibyendu Sarkar (9831750304)
19.	DLW	Sanjeev Singh (8130797563)
20.	DMW	Kirpal Singh (8427098490)
21.	MCF-Raibareilly	Sanjeev Singh (8130797563)
22.	RWP/Bela	Devendra Kumar Singh (8595925847)
23.	COFMOW	Amit Kumar Mall (8130797695)
24.	RDSO	Sanjeev Singh (8130797563)
25.	MTP-Chennai	P Sivakumar (7338827303)
26.	Rly Board	Amit Kumar Mall (8130797695)

	Support for CORE/Allahabad and its associated units				
Sr. No.	Unit	L1 Support			
1	ALLAHABAD	Pankaj Gupta (9794866513)			
2	KOLKATA	Goutam Chakrobarty (7044474056)			
3	GORAKHPUR	Sanjeev Singh (8130797563)			
4	CHENNAI	P Sivakumar (7338827303)			
5	AMBALA	Amit Kumar Mall (8130797695)			
6	DANAPUR	Devendra Kumar Singh (8595925847)			
7	BHUBANESWAR	Anup Kumar Chaudhary (9439654164)			
8	JAIPUR	Sanjeev Singh (8130797563)			
9	LUCKNOW	Sanjeev Singh (8130797563)			
10	SECUNDARABAD	E Sai Sekhar Reddy (7995373308)			
11	NEWJALPAIGUDI	Goutam Chakrobarty (7044474056)			
12	JABALPUR	Sanjeev Singh (8130797563)			
13	AHEMDABAD	Sanjeev Singh (8130797563)			

Escalation

Name	Mobile Number
Amit Mall	8130797695
Kumar Abhishek	8130797573
Ajaya Srivastava	9958198440
Centralised Helpdesk	8130353466, 8130868799

In addition a WhatsApp group "Pension/Settlement/ePPO" is available where issues can be raised and discussed.