

# Report

This project integrates mobile telephony with Information Technology for generating voice calls for timely transfer of information to rural citizens such as old-age, handicap & widow pensioners for their sanction and monthly releases of pension, social messages and many more.

Under State "100 Days Action Plan", the Department of Information Technology & Communication (DoIT&C) in association with Directorate of Treasuries & Accounts (DTA), successfully executed a Pilot Project called "e-SANCHAR"; it is - e-Speech Application through Network for Automated Communication, Help and Response; of integration of mobile telephony with the developed pensioner's software being run at Sub-Treasuries (ST) for disbursing pensions to eligible:

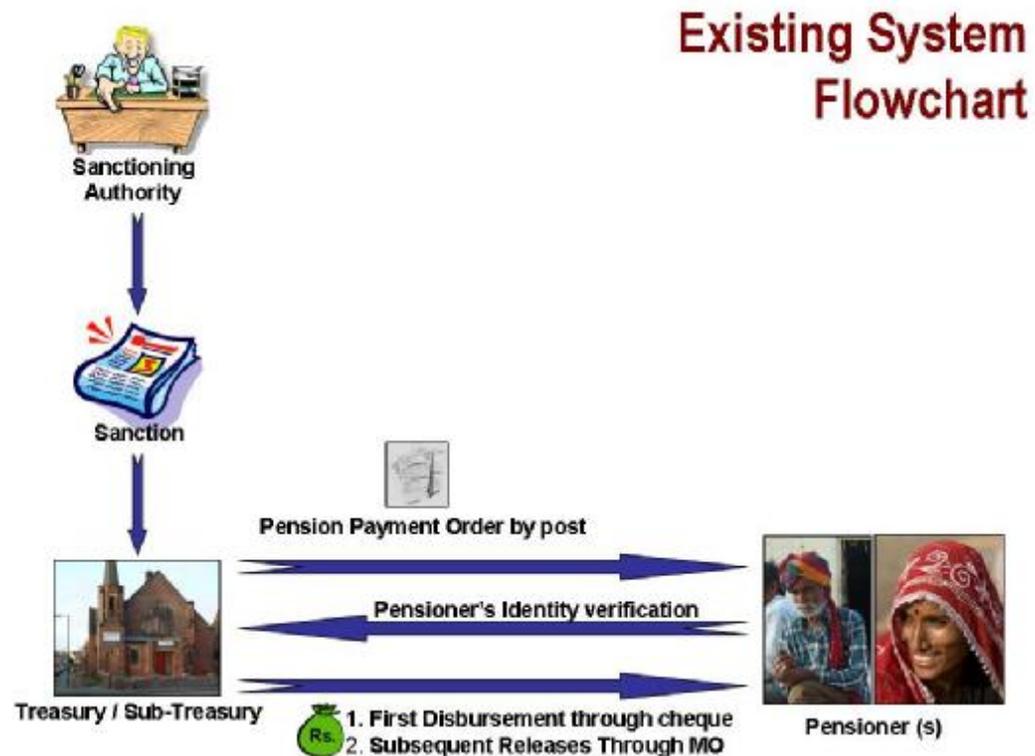
- old-age,
- widow and
- physically handicapped pensioners.

## 1. Existing System:

The NIC (National Informatics Center) developed a software for the Directorate of Treasuries & Accounts (DTA) which is being executed at all the STs of the state of Rajasthan. Through the software, new pensioner's details received from the sanctioning officers (SDOs, BDOs) are fed into computer at sub-treasuries. In the beginning pension is given to the pensioners as soon as s/he approaches to the STs after getting written intimation from the sanctioning authority and thereafter the monthly pensions are disbursed through money orders which are printed through computers.

Under the present circumstances, the pensioners get to know about the status of his/her pension after considerable delay and that too by personally visiting the office or through some contact person who is able to find out the status of the application. There is no established mechanism to intimate these pensioners about their pensions soon after its sanction / release which gives

rise to uncertainty making this socially underprivileged section dependent on non-institutional support for obtaining information regarding the status of this pension application. Existing system can be seen as follows:



Issues in the existing system are enumerated as below:

- § PPO (only once) is conveyed to pensioners which takes considerable time
- § Bulk money-orders are printed and issued for transfer of pension payment
- § No institutionalized system available with pensioners to confirm status of their application
- § Prevalence of intermediaries who thrives on ignorance & illiteracy of this age group
- § Inability of this age group to frequently commute
- § Possibility of exploiting transaction cost cannot be ruled out

The existing pilot project seeks to:

- (a) Provide information to the applicant / contact person approved of by the applicant regarding the status of sanction of pension soon after the pension payment order (PPO) has been issued.

- (b) Provide information to the applicant / contact person approved of by the applicant soon after the pension amount has been released by the sub treasury to be credited into the bank account / post-office account of the applicant and facilitates transfer into the bank account of the applicants who have volunteered for opening of bank account for receiving pension.
  
- (c) The voice call, apart from the above information flow also presents the humane face of administration and helps build up lots of trust and faith in government besides bringing in efficiency and effectiveness in administration through greater transparency, accountability, responsiveness and accessibility.

The aforesaid objectives can be met only when the information flows over a mobile platform which has a much larger penetration in rural areas as compared to IT. Moreover, transmission of information as outlined above through voice call does away with the problem of illiteracy which is quite common in this age group as well as in the target population being covered under the pilot project.

Keeping the aforesaid ground realities in mind and with a view to meeting the aforesaid objectives, the pilot project by the name of e-SANCHAR (e-Speech Application through Network for Communication, Help and Response) was conceived of.

Apart from meeting the objectives outlined above e-SANCHAR has the ability to have reality check conducted in a wide variety of other Individual Beneficiary / Group Beneficiary programme and remove any intermediaries between the Government and the targeted beneficiary. Besides, e-SANCHAR can be used as a very effective IEC tool for social messages which are quite common in several Government run schemes / programmes. It would be relevant to mention that the application if upscaled and implemented through out the State by various Government department would help generate a large data base of the deprived section of rural population which can be targeted through other social benefit schemes also.

## 2. Selection of Treasury:

After deciding to implement the project with the aforesaid aims, DoIT&C in consultation with Jaipur district administration chose Shahpura Sub Treasury for implementation of this pilot project. Presently, approx. 3800 pensioners have been registered and pensions through money order are given.

At the sub-treasury following IT-equipments are available:

1. Old computer MS-Windows 98 based machine with 64MB RAM attached with a TVSE 24 pins dot matrix printer (DMP)
2. P4 computer with MS-Windows-XP attached with a 9 pins DMP and a BSNL broadband connection.

## 3. Sharpening pencil:

With the help of a local TSP the data captured got converted into text-to-speech and subsequently the synthesized sound is fed into phone dialer to on the given contact phone numbers, pre-recorded voice call with dynamic fields (text-to-speech) shall be generated. The voice call was to be generated 3 times for each pensioner scheduled every day. After third try it would stop generating voice calls for the batch files. This shall be done for monthly sanction and release of pensions.

## 4. Ground Work:

- a. NIC had developed software for all treasuries. It helped in expediting the preparation of MO printing only. The software was examined by DoIT&C and necessary suggestions were made to the Director, T & A so that the same could be incorporated in the existing application of NIC. The NIC module was to be revised with respect to:
  - i. Master & monthly release data entry module
  - ii. Module for generating text file for uploading
  - iii. Module for generating bank advice

- b. In the mean while with the help of District Collector , Jaipur , entire PPOs' information available with Shahpura Sub-Treasury was sent to SDO (Shahpura) to capture the following details. Contact numbers in 33% of the cases could be received from BDO, Tehsildar & Gram-sevak i.e. approx. 1300 out of the total PPOs:
  - i. Contact number (mobile / land-line : own or reference)
  - ii. Bank account (existing or new with willingness) with branch name/ bank name
- c. The aforementioned data were entered into the software after necessary examination.

**5. Voice call generation:**

The system which has been conceptualized in association with DTA, NIC, Social Justice & Empowerment Deptt. has started generating voice call as below:

- a. New PPOs which have been received at the sub-treasury and having contact numbers (mobile no. / land line no.) were fed into the revised pensioners software
- b. Before preparing text softcopy for processing, a thorough manual check was done jointly by Department of Information Technology & Communication (DoIT&C), Sub-Treasury Officer and DTA official. Looking to the internet bandwidth, a text file was planned to be uploaded as it consumes very less size and can, therefore, be uploaded through Internet quickly or within no time. The text file has following information which is used by automated dialer system to generate voice calls to the registered pensioners-id, those in respect of whom information regarding own or reference mobile/landline number exists.

Text File:

Sno.	Field	Width	Description
1.	TREASURY CODE	(4) characters	Code of treasury
2.	PPO NO	(10) characters	PPO Number
3.	PPO NAME	(40) characters	Pensioner's name
4.	PPO FATHER	(40) characters	Pensioner's father/husband name
5.	CATEGORY	(1) character	Type of pension
6.	SEX	(1) character	Gender
7.	AMOUNT	(10) characters	Pension amount in Rs.
8.	DEAD/ALIVE/STOP	(1) character	Pension status due to death or stop
9.	STOP DATE	(10) characters	Date on which pension stopped
10.	PENSION ISSUE DATE	(10) characters	Issue date of pension

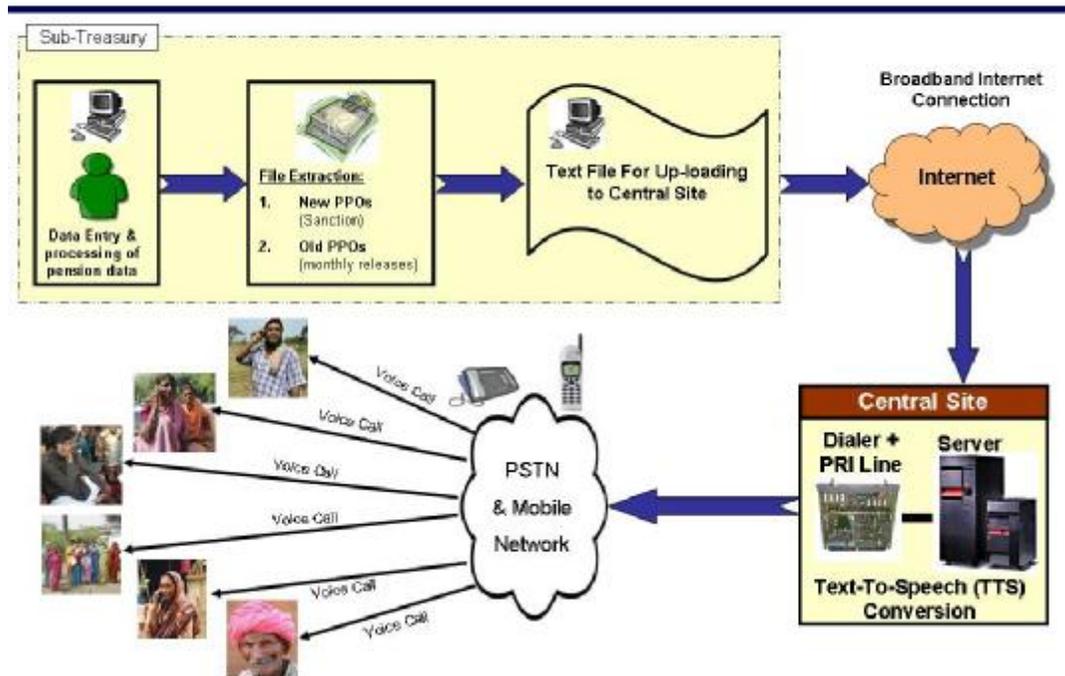
11. PAYMENT DATE	(10) characters	-	Payment date
12. STD CODE	(5) characters	-	STD code
13. LAND LINE	(8) characters	-	Land line phone number
14. MOBILE NO	(10) characters	-	Mobile number
15. POST/ BANK FLAG	(1) character	-	Account in PO or Bank
16. ACT NO	(20) characters	-	Account number
17. BANK/POST OFFICE	(40) characters	-	Name of bank or PO
18. MONEY ORDER DATE	(10) characters	-	Money order date
19. SYSTEM TIME	(8) characters	-	System time

- c. After processing them, a text file is generated through the software which is required to be uploaded to TSP URL <http://esanchar.rajasthan.gov.in> (UserID: 2012; Password: abc) from where the voice call dialing system is initiated and matured on the pensioners' contact numbers.

Voice Call Format:

- ueLdkj] vki ds fy, ,d egRoiwKz l p uk dtk; k /; ku l s l p u Jheku@Jhefr ---- th vki dh onAkoLFkk@fo/kok@fodykx i aku : - ---- fnukd ---- dks tkjh dj nh x; h g vki l c /kr dkskky; ea rjar l a dz dj
- ueLdkj] vki ds fy, ,d egRoiwKz l p uk dtk; k /; ku l s l p u Jheku@Jhefr ---- th vki dh onAkoLFkk@fo/kok@fodykx i aku : - ---- fnukd ---- dks euhvKMj dj nh x; h g vki dks vxj l kr jst ea euhvKMj u feys rks vki l c /kr dkskky; ea rjar l a dz dj
- ueLdkj] vkids fy, ,d egRoiwKz l p uk dtk; k /; ku l s l p u Jheku@Jhefr ---- th vki dh onAkoLFkk@fo/kok@fodykx i aku : - ---- ---- fnukd ---- ---- dks c d ea tek dj nh x; h g vxj ; g i aku jkf'k 3 fnol ka ea vki ds [krs ea u feys rks vki l c /kr dkskky; ea rjar l a dz dj

## E-Sanchar System depicts



d. Currently, server and other required hardware/telephone lines used installed & configured in the State Data Center .

**Note:** For sub-treasury office, Shahpura, a detailed instructions (Annexure-2) note was also prepared and given to the treasury to carry out the task.

**6. Proof of Concept:**

The DoIT&C selected following two dates on which pensioners' data shall be uploaded towards PoC:

1.	31 <sup>st</sup> March, 2009	New PPOs (first pension is yet to be disbursed)
2.	2 <sup>nd</sup> April, 2009	Monthly release of PPOs (regular monthly pension)

**7. Verifications of automated generated calls:**

**Case-1:**

On 31.03.2009, out of the 28 dialed calls to the new pensioners, randomly 10 numbers were picked for verifications.

**Case-2:**

On 02/04/2009, out of the dialed 120 calls to the old pensioners for monthly releases, randomly 10-12 numbers were picked for verifications.

**Verification at the level of treasury office and field:**

Two methods would be adopted.

1. Since the pensioner has to necessarily come once to the Sub-Treasury for first release and also once every year for physical verification, the Sub-Treasury Officer can easily verify the details of voice call. The verification report shall come later on as and when the pensioner visits the sub-treasury office for necessary formalities to be done at the first time.

2. Besides, a team of Sub-Divisional Officer together with DoIT officer would also carry out field visit to cross-check the same for a sample group and also obtain feedback from them.

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