



## **A Case Study of e-HUDA: Computerization of Haryana Urban Development Authority (HUDA)**

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### **ABSTRACT**

*To improve transparency, build accountability and streamline the service delivery Processes, HUDA went in for a comprehensive IT drive across the state in mid 2006. Over a period of time HUDA has not only over achieved its set goals with resounding success but it has also added revenues to its coffers and brought tremendous improvement in the system. To make the information available to its allottees uninterrupted on the net anytime and anywhere HUDA initially hosted the application in a small data center established in its own premises but with the huge success is now moving to Reliance data Center Mumbai to make it more secure and sturdy. Before the implementation of application software (e-HUDA) HUDA was maintaining all its operations manually but with the implementation of e-HUDA (Plot and property Management and Financial accounting system) most of the client related services have been automated. HUDA is moving towards 100% computer literacy. It is mandatory for all officials to learn computers and even the record keepers are processing the applications on the computers. To make this a success down the line HUDA has changed its service rules and all fresh recruitments at the lower level Knowledge of computer has been made mandatory with at least six months certificate course and with good computer typing speed. The facts are widely acknowledged by the press at local as well as National Level. (See Attachment “Press Coverage”). This application if replicated in all the Estate offices of the country can bring a revolution in the management of Plot and Property records in the country as done by core banking solution in the banking industry. Till now all these records are maintained manually and whatever the babu says is treated as final. The situation is very pathetic and nearly every citizen of the country is affected.*

### **1. Situation before the initiative**

Prior to mid 2006, HUDA like any other urban body in the country worked in very archaic and unscientific manner. The transactions between HUDA and its allottees were done manually with overdue and undue interference from *babus* at every level which resulted in loss of productivity and revenues. For every new allottee, it took a minimum of three to six months to get his application registered, processed and accepted. The delay apart from giving bad name to HUDA, causes a lot of inconveniences to the allottees. Corrupt practices were the order of the day. The whole process of allottee registration, was recorded manually on office files, and as such getting exact and prompt information was next to impossible. The information pertaining to dues (whether paid, overdue or delayed) was not passed on to the allottees, neither the higher

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echelons in management were aware of them. Whatever information was provided by the babus was treated as final and whatever money was being asked, the allottees had to pay the amount. There was no mechanizing to cross check the information. Moreover, if there was any tampering with the manual data, no one comes to know about the fact, causing great losses to allottees as well as HUDA. The balance statements of many of allottees, due to oversight, hadn't been submitted for years. Because of this oversight, allottees hadn't submitted their installment for years, causing huge losses to HUDA exchequer.

No information was readily available to the HUDA top management about the available Vacant, sold, resumed or stayed plots in the state at a particular time. This paucity of information meant that the organisation had never the correct data to submit to state government about land availability at particular time. In some of the situations an allottees get faulty plot in a draw then as per law an alternate plot is to be provided out of the existing plots but due to the non availability of information allottees gets years to get the alternate plots i.e., his due share. With information very hard to permeate from shabby old files, the allottees jostled at the HUDA offices for weeks together to get that valuable information. This caused tremendous pressure on the available staff at HUDA who had to work doubly hard to give information to the allottees.

The information among HUDA Engineering departments was very hard to come. The information related to the filing of tenders for a particular engineering work was not known directly to the top management. Whatever information was made available by the lower rung was taken as final and correct and critical decisions were based on the available information. There was no method of funds monitoring. Huge sums are deposited by way of floating schemes and this money is deposited in banks. Even a days's interest comes out to be lacs of rupees but all this are at the discretions of the babus. Major chunk of money was lying in different banks and even after the expiry of maturity period no one is bothered about their renewal.

## **2. Strategy Adopted**

In late 2005, after detailed deliberations and discussions, HUDA went for a comprehensive computerization system. One of the most innovative programs in the country the system aimed to

- Bring an improved transparency in working of HUDA
- Build accountability among members of HUDA
- Improve service delivery mechanism of HUDA

For the start, an independent IT wing was created and persons with proven track record in managing the project life cycles were selected. Full authority was given to the persons in taking important decisions. The digitization process was done in very planned and phased manner. The digitization and reconciliation of accounts were handled by the leading banks (ICICI and UTI Bank) in the state, which, have had the experience of doing similar work with 100% success rate. In the first go data from the plot files were manually captured on specially designed forms. Based on this statement a communication along with the account statement and important dates on which calculation takes place were sent to each allottee that this information exists with HUDA pertaining to their record and in case of any variation allottee can come with valid documents to the specially established counters/helpline by both the banks for reconciliation. The data of the allottee was then verified with the cash books and in case of variation the documents were retained and enclosed in his file. The data is then corrected and later on audited by an independent audit agency from each bank before uploading in the system and the sector becomes online. The system too performs some checks. Initially new sectors were taken where maximum number of transactions were taking place. The commercial, institutional and social charitable property comes at a later stage. The solution was developed by associating TCS team and the user acceptance tests were conducted by the concerned staff under the control of their module heads before the final product was implemented.

MS SQL server was chosen because of its robustness and scalability as a core backend. Two robust

solutions were developed which catered to internal and external need of the HUDA. The system has strict security guidelines in- place and access rights are fiercely guarded. The data is hosted on Reliance Data center at Mumbai on dedicated servers with Disaster recovery site at Bangalore. This is very unique example in the country wherein a govt. agency is using a private Data Centre to provide a robust and sustainable solution to its allottees anywhere anytime.

***e-Huda comprises two modules***

- Plot and Property Management (PPM)
- Financial and Accounting System (FAS)
- **Plot and Property Management Package PPM):** The PPM application was specifically designed to improve transparency, build accountability and improve service delivery mechanism of HUDA with its allottees across the state. The application provides seamless interaction of allottees with the working of HUDA. The allottee is provided with a user name and password and from the luxury of his home, can track the status of his application on net at the site [www.huda.nic.in](http://www.huda.nic.in). He can monitor all his paid, pending, delayed installments and also the interest due on his installments without coming to HUDA offices. The system has a provision of entertaining more than lakh allottees at a time.
- **Financial Accounting System (FAS):** The FAS system was specially designed to improve transparency, build accountability and improve service delivery mechanism of HUDA within its own departments. Now the quotations of the tender are readily available to senior officials officials without anyone interfering or playing with information. The application has a system to monitor funds monitoring. HUDA decision makers are now having correct records on where and how funds are being spent. Transparency existed between the employees and the contractors. HUDA is planning to integrate a dynamic web payment gateway with the existing platform. This will help allottees to deposit their installments online in the future, thus saving them time and effort.

**3. Results achieved /value delivered to beneficiary of the project:**

After the successful implementation of the project HUDA has not only over achieved its set goals with resounding success, it has also has added revenues to the state coffers. Every allottee is provided with a user name and password and from the luxury of his home, can track the status of his application. He can monitor all his paid, pending, delayed installments and also the interest due on his installments without coming to HUDA offices. The time taken to register an allottee is instant which was earlier ranging from a minimum of three to six months. Corrupt middle men, property dealers have been thrown out of equation.

The biggest achievement of the computerization drive has been the recovery of money to the tune of lakhs of rupees from the allottees who had till date never submitted any money to HUDA. Many properties have been identified where the allottees are staying without paying the dues for years. The system has identified all such properties as defaulter whereas many of the allottees who have paid in excess are refunded their dues. The amount, HUDA had recovered in Panchkula alone from such type of allottees is to the tune of lakhs. The amount is many times higher than the total investment HUDA has made on its computerization drive. The new system has been designed and calibrated with such pinpoint precision that an allottee has to submit all the necessary document and then only their application will be processed online. The system has inbuilt check-in systems, which see to it that every procedure is followed religiously. The whole process of allottee registration, is now computerized and every allottee as well as concerned HUDA official has information pertaining to installments (whether paid, overdue or delayed) on his fingertips.No one can now tamper with the manual data, thus saving HUDA and allottees from losses.

Information is now readily available to the HUDA top management and the Government about the vacant, sold or stayed plots in the state at a particular time. With information available on finger tips allottees no

longer queue the HUDA offices for weeks together. This has taken pressure off the available staff at HUDA who had to work doubly hard to give information to the allottees. This meant the available staff can devote their work for amore productive means which was not the case before. The information among HUDA departments is now readily available due to FAS system in place. The information related to the filing of tenders for a particular engineering work is now know directly by the top management and correct decisions are now made based on the available information. Every event is recorded therefore, every allottee knows at what stage his application is and what needs to be done further. Both allottees and the HUDA officials are in sync with each other which helps in smooth functioning of the work.

***Other distinctive features/ accomplishments of the project:***

With the implementation of these modules, the control mechanism has considerably improved resulting in good revenue saving and accurate invoicing. Now, the application processing time of more than six months takes few days resulting in excellent improvement in productivity

- Initial Resistance to change is over.
- IT culture has been generated
- A state of the art Data center with all security checks are available
- Data migration took place from disparate Legacy systems to new Application and hence all the data is available in electronic form.
- Information is globally available.
- This application can be replicated in all the Urban Estates of the country and can bring Revolution in the so called most MIS managed offices of the country. Nearly every citizen of the country, NRIs having property in the country will be benefited with this application.

*Enhancement of Productivity*

HUDA implemented a very unique way of improving the productivity of its employees. The concept termed as “Train the concept” involed .Right people( Domain Knowledge Experts) were selected for the job. These people were involved during each stage of development so that the final product may be developed according to their needs. This also helped in generating their ownership about the system which became tremendously helpful in successfully implementing the system. HUDA employees were give special incentives so that they can give quality inputs and work to make solution a success. The solution was developed in-house along with TCS team and were tested by the employees (Master Trainers) of HUDA in a real time situation before the final product was implemented. One of the major bottlenecks overcame by adopting this strategy was that theses master trainers overcame all the resistance which came from different sections of the staff about the pros and cons of the system. The system is widely appreciated by the allottee and the national as well as local media.

*Improvement in Efficiency*

Before the proceeds of computerization was done at HUDA, the information very hard to permeate from shabby old files. Alottes numbering thousands normalt seen jostling the HUDA offices for weeks together to get the information. This caused tremendous pressure on the available staff at HUDA who had to work doubly hard to give information to the allottees. This meant more staff was hired, for the work which didn’t add tangible value to HUDA.

Post computerization drive, the information is available to allottees on finger tips by clicking a mouse. Alottes no longer seen queue the HUDA offices. This has taken pressure off the available staff at HUDA who had to work doubly hard to give information to the alootees. This means the available staff can devote their work for more productive processes which was not the case before.

Moreover, for every new allottee, it took a minimum of three to six months to get his application registered processed and accepted. The delay apart from giving bad name to HUDA. The role of corrupt middle men,

property middle man was completely eliminated.

Every allottee is now provided with a user name and password and from the luxury of his home, can track the status of his application. He can monitor all his paid, pending, delayed installments and also the interest due on his installments and even see the status of his request without coming to HUDA offices on the net at the website [www.huda.nic.in](http://www.huda.nic.in). The time taken to process an allottee request has come down to less than a week from three to even six months or longer. Corrupt middle men, property dealers have no role in the new system.

#### *Service Delivery – Business/Citizen Centricity*

The HUDA Plot and Property Management (PPM) platform enables allottees the access to use services online. An allottee is at the centre of HUDA's e-governance drive. The main logic behind designing HUDA's Plot and Property Management (PPM) is to provide seamless interaction of allottees with the working of HUDA. The allottee is provided with a user name and password and from the luxury of his home, can track the status of his application. He can monitor all his paid, pending, delayed installments and also the interest due on his installments, without coming to HUDA offices. He can access the system from anywhere in the state or for the matter anywhere in the world. HUDA is planning to integrate a dynamic web gateway with the existing platform. This will help allottees to deposit their installments online in the future, thus saving them time and effort.

#### *Defined and Achieved outcomes*

HUDA with an aim to improve transparency, build accountability and streamline the service delivery processes, went in for a comprehensive IT drive across the state in late 2005.

- Bring an improved transparency in working of HUDA
- Build accountability among members of HUDA
- Improve service delivery mechanism of HUDA

Post the computerization drive, HUDA has not only over achieved its set goals with resounding success, it has also added revenues to the state coffers, winning accolades from the state as well as central government. Biggest achievement of the computerization drive has been the recovery of money to the tune of lakhs from allottees who had till date never submitted any money to HUDA. The balance statements of these allottees, due to oversight, hadn't been submitted for years, causing huge losses to HUDA exchequer.

The amount, HUDA had recovered in Panchkula alone from such type of allottees is to the tune of lakhs. The amount is many times higher than the total investment HUDA has invested on its IT implementation. The process continues for rest of the state.

#### *Sustainability*

E-HUDA was developed, tested and trailed by the employees by the employees of HUDA in-house in real time situations before the final product was implemented across the state. The solution is supported by MS SQL server because of its robustness and scalability. The robust packages were developed which catered to internal and external need of the HUDA. More than 30000 allottees in the lean period and more than lakh allottees during the peak period can log into the system at the same time. The system has strict security guidelines in place and access rights are fiercely guarded and are given to select few. HUDA has setup DR centers across the country so that critical data of allottees is stored in a secure way.

#### *Innovation*

HUDA computerization drive is one of the most innovative programs in the country which makes it possible for more 30000 allottees in the lean period and more than lakh allottees in peak period to log into the system at the same time. The system provides seamless entry for allottees so they from the luxury of his

home, can track the status of his application. Only with an access to user name and password, the allottee can monitor all his paid, pending, delayed installments and also the interest due on his installments without coming to HUDA offices. The process of digitising records of HUDA allottees was done in very planned and phased manner. The process was handled by the leading banks in the state, which, have had the experience in doing similar work with 100% success rate. In the first go all the allottees which had a three year old relationship with HUDA were digitized, followed by digitization of all commercial properties. The residential properties which were 20 years old were digitized at much later stage as there are very few transactions in these properties.

#### **4. Concluding Remarks**

e-HUDA has been successful on several fronts i.e. it has helped to improve the efficiency of HUDA's internal operations, benefited businesses and citizens by providing them access to online information, and has largely succeeded in reducing corruption. Urban Development Authorities in India are notorious for their inefficient and corrupt functioning, a situation in which corrupt government officials prosper at cost of the tax-payers. eHUDA can serve as role model for Urban Development Authorities in other states of India.