Lahore electric supply company essay

Contents

2. 0 OVERVIEW OF LAHORE ELECTRIC SUPPLY COMPANY (LESCO) PAKISTAN

2. 1 History

The electricity supply service in Pakistan, ab initio, was undertaken by different bureaus, both in public and private sectors in different countries. In order to supply for the incorporate and coordinated development of the H2O and power resources, Water and Power Development Authority (WAPDA) was created through WAPDA Act, 1958. In 1994, Government of Pakistan approved the strategic program of restructuring and denationalization of power sector. As a consequence, power wing of WAPDA was unbundled into 12 companies for coevals, transmittal and distribution of electricity. Lahore Electric Supply Company (LESCO) was formed in March, 1998 with the purpose of commercialisation and finally denationalization.

2. 2 Region-wise Cleavage

LESCO holds the Distribution licence from National Electric Power Regulatory Authority (NEPRA) to provide electricity in the countries that screens Civil Districts of Lahore, Kasur, Okara and Sheikupura. It serves over 2, 000, 000 clients 24 hours a twenty-four hours, 365 yearss per annum. In order to supply un-interrupted electric supply and quality service to clients, LESCO has divided its jurisdictional country into six distribution operation Circles.

2. 3 Organizational Structure

Harmonizing to Balle, M (1996) organizations represent systems, non merely constructions. They are composed of mutualist people who rely on

another for work-someone starts it, person delivers it to the customer- for relationships and for self-fulfillment. Likewise, in LESCO Superintending Engineer looks after the personal businesss of the whole Circle as being an incharge through functional/administrative control over assorted Divisional and Sub-Divisional Engineers including their liaisoning offices (WAPDA, 2000) . However, Figure 1 shows the organisational construction of LESCO as being the focal point of this survey.

Figure 1—LESCO's Organizations Structure

Beginning: (Organogram, 2009)

3. 0 A SUMMARIZED VIEW OF INFORMATION SYSTEMS IN LESCO

As, defined in the mission statement of LESCO that the primary end is to provide the un-interrupted electricity and quality services to all class of consumers at the lower limit possible cost (Mission, 2009) . Keeping in position the mission statement, major milepost was set for LESCO Main Computer Centre to computerise electricity charge and aggregation processs, which was met through in house development of charge and aggregation package. A brief note on each of these systems is as follows:

3. 1 General Description of Billing System

Meter reading and charge are carried out over all available yearss in a month in a complete rhythm procedure in order to supply service to different classs of clients. Meter reading lists are prepared in progress by LESCO Main Computer Centre Lahore and its sub-centre at Sheikupura, which provide services to Sheikupura Circle merely. They are sent to the liaison Divisional Office that is Revenue Office, who arranges for metre readings to be entered

on the lists by the metre reading staff in the Sub- Divisional Office, follow up metre readings are prepared manually in Sub-Divisions. After entry of the readings, the metre reading lists are returned to the Revenue Office where the control records over the computing machine charge are maintained. After entry in the Revenue Office computing machine Records the metre reading lists are collected together in a batch file for each sub-division. The batch files are so passed to the LESCO Computer Centres on a storage device for farther processing. Consumer’s measures are prepared in the Computer Centres and sent to the Revenue Office for distribution to consumers through Bill Distributors, who are under the control of Sub-Divisional Officer (WAPDA, 2000) . Figure 2 shows the block diagram of the system.

Figure 2— Block Diagram of Billing System

Director Customer Services

Charge Agenda

Computer Centres

VAX 4000Server/VMS/COBOL

Gross Office

(Computer Section)

Printed Reading Lists and other studies

Batch files alongiwth updated Meter Reading lists

Sub-Divisional Office

Printed Reading Lists and other Reports

Manually updated Meter Reading Lists

MIS Reports

Beginning: Developed for this study

The undermentioned studies, lists and notices are besides forwarded by the Computer Centres to Divisional and Sub-Divisional Engineers for taking appropriate decision/action (WAPDA, 2000) :

Customers' assessment list demoing the charges on each measure along with running entire and besides the entire figure of consumers connected, temporarily disconnected and with equipment removed in each batch.

Disjunction notices, which are sent to the consumers, who have non paid their measures by due day of the month.

Each Month Computer Centre prepares analysis of energy gross revenues by Tariffs for each feeder, each Sub-Division and Division and analysis of outstanding debts demoing arrears by Tariffs and age.

Feeder wise line losingss for range Sub-Division

3. 2 General Description of Collection System

Customers pay their current measures, Demand Notices for new electricity connexions and reconnection fee for Restoration of staccato supply to the specified Bankss and station offices. The bank/post office receives the

measure or Demand Notice, enters the reception on the Banks coil, and retains the stub. Banks day-to-day sends a transcript of bank coil and stubs to the Revenue Office. The Revenue Office Accounts subdivision checks the measure counterfoils to the bank coil for any discrepancy/error. The coils and stubs are so sent daily to the LESCO Computer Centres and where each consumer's payment is processed by the Computer into the Consumers ledger database. The Computer supplies a sum of hard currency posted to each charge batch and sum of unidentified hard currency, new connection/ reconnection fees and other grosss, to accommodate with the sum of all bank coil for each Division. However, in the event of difference non being discovered during this cheque Computer Centres will treat the sum shown on the stubs and return the coil to the Revenue Office for re-checking and confirmation. Furthermore, the bank subdivision remit the sums collected to aggregation history in their local caput offices as designated by LESCO and direct a transcript of the bank statement to the Revenue Office bespeaking entire money received during the hebdomad and money remitted to the Head Office Collection Account each hebdomad and at the terminal of each month. The Revenue Office Account Section reconciles the bank statement with the study forwarded by the Computer Centre and sends a transcript of rapprochement to the LESCO's Finance Director (WAPDA, 2000) .

3. 3 Recent Improvements in the Payment Channels of Collection System

Electricity measure payment was really boring undertaking as clients had to stand outside Bankss for an drawn-out period of clip due to manual processs of payment. Besides, there were issues such as bank timings and holds in remittal processing. Recognizing the demand to decide the quality of service

to clients, Chief Executive Officer LESCO decided to research the payment channels. LESCO Computer Centre took the enterprise and proposed a program for get downing e-service and printing of machine clear electricity measures. Consequently, the system was officially launched from March, 1995. At present, 355 subdivisions in LESCO are equipped with this system roll uping approximately 25 % of measures. However, the measures are paid at designated bank subdivisions, station office and retail shops as usual, but with a proficient difference. The measures are scanned by the teller utilizing a barcode scanner merely like a retail shop teller does for food market points. With a individual scan, all the information encoded in the barcode is immediately transferred to the package. In this manner, bank tellers can bring forth daily/monthly coils and aggregation sum-up (Collection, 2009) . Figure 3 shows the cashier user-interface of the hard currency aggregation package.

Figure 3— Cashier Interface of Cash Collection System

Beginning: Courtesy of MIS Department, LESCO

Besides, the client can lodge electricity measure utilizing LESCO’s web site, wherein he/she is required to login by supplying his/her alone electricity measure mention figure. Thereafter, s/he will come in the debit/credit card information for doing the payment, which is so referred to the Card Processor for confirmation and charging. If the card got validated the sum will be credited to the consumer history and dealing will be committed to the database. And on-line reception is provided to the consumer for printing

(Collection, 2009) . Figure 4 shows the web diagram of current aggregation system.

Figure 4— Network Diagram of Collection System

Beginning: Courtesy of MIS Department, LESCO

As, depicted in Figure 4 the aggregation informations from Banks is transferred to online waiters on day-to-day footing utilizing a simple cyberspace connexion. Alternatively, if no cyberspace connexion is available a aggregation file may be generated and carried on a portable media. Hence, the charge information is uploaded to the online waiter whenever it experiences any alteration. Customers are able to entree true online web-based services at the company web site, which includes the followers:

Sing monthly measures

Printing extra measures

Payment

Consumption & A ; Payment history

History Status

3. 4 Payroll Information System

Payroll of assorted sections of LESCO is prepared by the Computer Centre on monthly footing. Master files for officers and staff are maintained individually. Data relating to each employee of a peculiar section is stored on

several maestro file. The Payroll Master File contains one record for each employee. The chief properties of paysheet informations are:

Department Code

Employee Code

Processing Code

Name & A ; Designation

Station Code

Pay Account Head

Conveyance Allowance

Medial Allowance codification

Income Tax Tax write-off

Union Fund Deduction

GPF Number

GPF Deduction

voluntary part

National Tax Number

Type of Progress

Entire Amount of Advance

Bank Branch Code

Bank Account Type

The records in the File are maintained consecutive (Sorted on Department Code and Employee Code) . Data is received from assorted sections on prescribed Performa ‘ s by the coordination subdivision of Computer Centre. The Data coded in these Performa ‘ s can be New Addition of an employee’s paysheet informations, a Change in an bing record or omission of an bing record. Figure 5 shows the Data Flow diagram of the Payroll System.

Emp. File

Wage Ratess

Employee

Validation Check

Compute Gross

Produce Cheque

Compute. Net Wage

Determine Deductions

Tax Table

Personal Data

Account Rerecord

Payments and Tax write-offs

S. S Data

Figure 5— Data Flow Diagram of Payroll System

Beginning: Courtesy of MIS Department, LESCO

Data is entered into the Computer through the Entry Machines by the Key Punch Operator. After Entry an edit List is prepared through edit listing plan. This List is exhaustively checked by the Data Coordinators with the existent information on input Performa ‘ s and the punching or cryptography mistakes are removed.

Any alteration, add-on of new record or omission of bing record is intimated by the concerned section to Computer Centre on prescribed Performa ‘ s. Using this information, Master files of officers and staff are updated. After updation, different types of end product studies are prepared, which includes:

Payroll Listing

Listing of different types of agendas

Account Head wise Summary

Pay Slips

Bank Summary Etc

Reports are sent to respective sections after through checking.

Besides, every twelvemonth in the first hebdomad of December when Payroll processing for the month of November has been completed the one-year increases are assigned to the Pay of each employee in conformity their several graduated table of wage. A Pay Fixation list is prepared prior to the running of Pay Increment measure which shows Current Basic Pay with the add-on of one increase. This section wise list is sent to each section for look intoing & A ; confirmation. If any section wants to keep the increase of an employee so the action is taken consequently.

3. 5 Management Reporting Systems

At LESCO Computer headquarter ; two Alpha 2100 computing machines equipped with Alpha processors have been installed. These computing machines are being optimally utilized to help in timely analysis, bring forthing critical information for the top direction. For case, division-wise computerized receivables coverage and monitoring system supplying 20 different arrears analysis studies have been expanded to supply duty wise information as good. These studies have besides been farther extended to back up monitoring at the sub division degree. Furthermore, Performance data supervising study reflecting assorted types of charge, consumers' statistics and line losingss supervising system (Technology, 2009) .

4. 0 Critical ANALYSIS OF INFORMATION SYSTEMS EMPLOYED BY LESCO

Information System (IS) is defined as an organized combination of people, hardware, package, communications webs, and informations resources that shops and retrieves, transforms, and disseminates information in an organisation. Importance of information direction is highlighted by the fact

that in add-on to capital, labour and land, primary factors of production besides include stuff, energy and information. As, the universe is doing a rapid passage from an industrial society to a service-driven economic system, information is going the accelerator for economic development and alteration. In position of above, it may be argued that effectual Information Systems play a critical and spread outing function in concern activities, patterns and procedures. Furthermore, concern professionals rely on assortment of information systems that uses assorted Information Technologies, which refers to the assorted package and hardware constituents necessary for the system to run ( ) . In short, computer-based-information systems use the undermentioned engineerings: –

Computer hardware engineerings

Computer package engineerings

Telecommunications web engineerings

Data resource direction engineerings

Furthermore, rapid progresss in Information Technology (IT) are likely to ensue in displacements off from traditional function for both the IT professional and the Information users. A new coevals of skilled users will take part in the development of mission critical applications and the IT section will travel from a centralised depository and control of information into the concern map countries as client-server engineerings replacing chief frames. the twenty-first century Chief Information Officer (CIO) will be expected to heighten the value of information at multiple points along the

value concatenation and his/her duty will widen far beyond the traditional boundaries of the IT section. Indeed, the CIO will be required to exert leading across the breadth and comprehensiveness of the endeavor. From the waiving treatment, it can reasonably be deduced that the function of IT section has moved from one of proficient execution to strategic planning and from reactive support of concern to driving invention and competitory advantage.

There is natural decay of concern procedures over a period of clip because systems are designed old ages ago when both the organisation and available engineering were really different from today. Likewise, if Billing System of LESCO is analyzed from today’s engineering position so it has become a bequest system and no more delivering optimum public presentation and quality service to its internal/external clients due to manual processs involved. Site-visit reading of residential power, H2O, and gas metres is a boring, inconvenient and prone to human mistake. Furthermore, it is non ever guaranteed that the consumer will be present when public-service corporation forces visit to read meter readings. It is possible in such instance that public-service corporation forces will gauge ingestion inaccurately, which subsequently may take to consumer dissatisfaction. The recent progresss in metering engineering, nomadic webs, and cyberspace services have resulted in the proposal and development of measuring techniques, charge, and energy direction systems. As, many public-service corporations are implementing automated metre reading (AMR) systems. In add-on to meter reading, AMR can be used in the power Restoration procedure. While others have advanced the construct of AMR systems by suggesting possible

metering communicating services utilizing the radio nomadic public webs for mensurating and charging system.

5. 0 IT Technology Deployed by LESCO

Hardware Components

LESCO is utilizing VAX 4000 minicomputers (midrange) for centralised processing of informations in assorted Information Systems. Experts believe that many midrange and mainframe systems have become disused by the power and versatility of client/server webs composed of personal computers and waiters. Others industry experts have predicted that the outgrowth of web computing machines the on cyberspace and intranets will replace many personal computing machines, particularly in big corporations ( ) .

Software engineerings

Most the package bundles for the Information Systems as described above are developed in COBOL structured linguistic communication. However, modern applications are built in utilizing Object Oriented linguistic communications such as Java, C++ , and VB. Net etc.

Network Technologies

As shown in Figure 4, In LESCO mainframe-based web with many end user terminuss are deployed for centralised processing of informations, which has late been linked with Application and Online Web waiter for managing payment channels of clients. Furthermore, in Billing and Collection System batch files created in Revenue Office Computer Section are delivered by particular couriers on a portable media to LESCO Computer Centers for centralised processing. However, wireless Wide Area Networks (WAN) can

be used alongwith client/server engineering to manage the geographically distant processing and web communications.

Database Technologies

LESCO has designed its database constructions in COBOL linguistic communication, which is a traditional level file system. As, there are many anomalousnesss associated related to direction of level file such as redundancy of informations, complex operations for retrieval of studies, more storage, clip and cost etc. Whereas, modern Database Management Systems based on relational and object oriented techniques are really efficient and free from such complexnesss and mistakes.

6. 0 CONCLUSIONS AND RECOMMENDATIONS

Integration of IT and Customer Service

E-service provides a alone chance for concerns to offer new theoretical accounts for service design schemes and new service development. While e-service has rewritten many of the regulations of client battle, it has non basically changed the fact that a cardinal constituent of service bringing is constructing and keeping strong client relationships. What is of import therefore, in following IT-based computing machine based client service maps, is guaranting that the engineering used, enhances instead than sabotage the relationship between the client and the company. The interface between client and company is critical. With specific mention to web-sties, Meister et Al (2000) , point out that one of the major challenges of e-service is equilibrating the greater customization, which typically consequences in more complex Web sites, with a simple, accessible and easy to utilize Web interface. Besides, the companies that keep path of customer’s single

penchants maintain up with market tendencies, supply merchandises, services and information anytime, anyplace, and supply client services tailored to single demands. And so, Internet engineerings can do clients the focal point of client relationship direction (CRM) . Today many companies are implementing client relationship direction (CRM) concern enterprises and information systems as portion of client focused scheme to better their opportunities for success in the modern-day concern environment. CRM that uses IT to integrates and automates many of the customer-serving procedures in gross revenues, selling, and client services, push the company in front in competition with other rivals. Furthermore, CRM systems include a household of package faculties that provides the tools that enable a concern and its employees to supply fast, convenient, reliable and consistent service to its clients.

E-Service in LESCO

A reappraisal of the e-service started by LESCO to ease the clients sing electricity measure payment and other allied services reveals that LESCO is at an early phase in the development and execution of a complete e-service scheme. However, they have taken a extremist measure to better the measure payment channels in order to better the client services in this regard. As, it has already been discussed that computing machine based information systems rely on Information Technology. Therefore, a clip to clip up step of the engineering employed by LESCO in Information Systems is indispensable to maintain gait with the quickly altering IT environment.

7. 0 Mentions

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