

Overview of Corporate Management Information System in UPCL

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Introduction

A Corporate MIS software application, built around the Key Performance Indicators (KPIs), has been developed in UPCL for capturing, storing, processing and presentation of relevant information in suitable formats for managerial decision-making. The Corporate MIS package is purported to serve as a prompt MIS reporting tool serving as a Decision Support System for the senior management of UPCL .

Key Objectives of Corporate MIS

The Corporate MIS application has been developed with a purpose to align the MIS initiatives of UPCL with its key performance indicators, thereby ensuring efficiency, transparency and accountability in the reporting system of Distribution, Finance, HR, Projects and Commercial operations, with a focus on improved revenue improvement and consumer satisfaction. The key objectives of the Corporate MIS software application are:

1. Provide reliable, consistent data flow mechanism and secure information online
2. Enable departments to make right decisions based on online data
3. Improve efficiency and effectiveness of data sources through timely monitoring
4. Eliminate data redundancy and provide uniform MIS structure across UPCL
5. Integrate silos of information for better management and consumer services
6. Analysis of the Key Performance Indicators (KPIs) of each core function of UPCL

Key Performance Indicators (KPIs)

KPIs are the measurable parameters or yardsticks to judge the performance of the departments in an objective manner. For each KPI, a suitable metric has to be defined along with the method of measurement. In UPCL, the following KPIs were compiled from the departments concerned:

1. Operations:
 - a) Meter exceptions
 - b) Transformer exceptions
 - c) Reliability indices
 - d) Daily supply disruptions
 - e) Pending electricity connections > 25 KW

2. Finance and Commercial:
 - a) Metering, Billing and Collection efficiency
 - b) Average cost of supply (ACS)
 - c) Average revenue realization (ARR)
 - d) Energy input and ATC losses
 - e) Unmetered and non-meter-reading cases
 - f) Financial KPIs

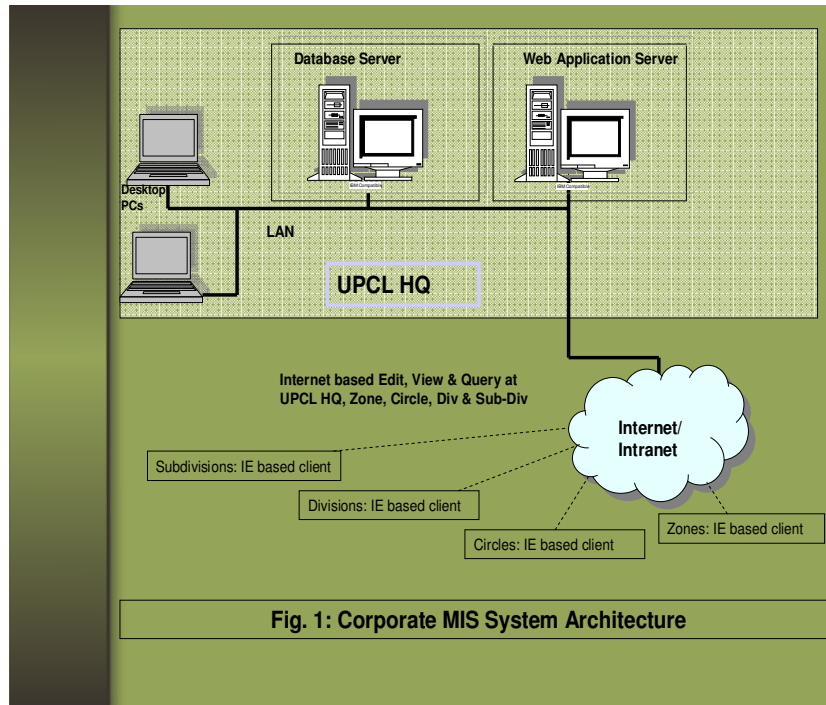
3. Projects:
 - a) District-wise details of progress of RGGVY schemes
 - b) District-wise details of progress of BPL connections

4. HR:
 - a) Division-wise employee details
 - b) Details of disciplinary proceedings
 - c) Details of employee movement, transfer and departing cases

Corporate MIS Architecture

The system architecture has been designed to manage silos of data in different forms and time-stamps. Also the Corporate MIS software has been developed on a standards-based, unified platform for data capture at source, data updating, processing, dissemination and presentation, in an objective manner, via the Internet.

The Corporate MIS is accessed by the bona-fide users and decision-makers via Internet, through browser-based client PC on real-time basis. The Corporate MIS database also serves as an archive of historical data for analysis, planning and forecasting. The system architecture is represented in the diagram (Fig. 1) below:



The system architecture of Corporate MIS has been designed to bring together a vast amount of data lying untapped at our substations and divisions, on almost real-time basis, which if made available to the UPCL top management on a single, integrated platform aimed to enormously improve the quality and efficiency of decision making on various critical issues.

Challenges in Corporate MIS implementation

Technology per-se would not bring about the transformation process. The people who will drive the process, process delivery mechanism and project life cycle management are important. The following challenges have been identified in the implementation and sustained operation of Corporate MIS application in UPCL:

1. Owning responsibility for timely data entry at source by Divisions/ Subdivisions
2. Regular monitoring of data collected at Divisions/ Circles/ Zones and HQ level
3. Clearly defined data collection and data entry responsibilities at every level
4. Proper identification and maintenance of records for accuracy of information
5. Regular, focussed training and staff development to use the MIS software

The following perceptible gains are perceived for UPCL if the project is successfully executed and made operational:

1. Improved MIS flow from Subdivisions/ Divisions to Circles/ Zones/ HQ.
2. Improved mechanism for MIS data collection, storage, monitoring and retrieval.
3. Reduced complexity in data formatting and standardized MIS reporting
4. Faster decision-making through easily identifiable data/ information elements.
5. Transformed work culture with active participation of staff in the MIS process.
6. Cost reduction by eliminating process redundancies and systematized workflow.

Technology used in Corporate MIS

The MIS package is standards-compliant with modular and scalable design, n-tier web-based architecture and capable of connecting to different data formats. The MIS model is web-based, database-driven and the backend comprises of the following essential elements:

1. Web Application Server
2. Database Server
3. Web Application and Database Software
4. Firewall-secured Internet access

The Corporate MIS solution implemented in UPCL is cost-effective with reference to the total cost of ownership (TCO). The complete solution has been developed keeping in mind techno-economic considerations, time-factor and global best practices.
