Material Management System

Business Understanding Document v1.2

Presented By :- Web Solution Company

Contents

Objective: - The purpose of the document is to provide a high level understanding of business and process flow of the existing manual material management system to Klystron Electronics Pvt Ltd.
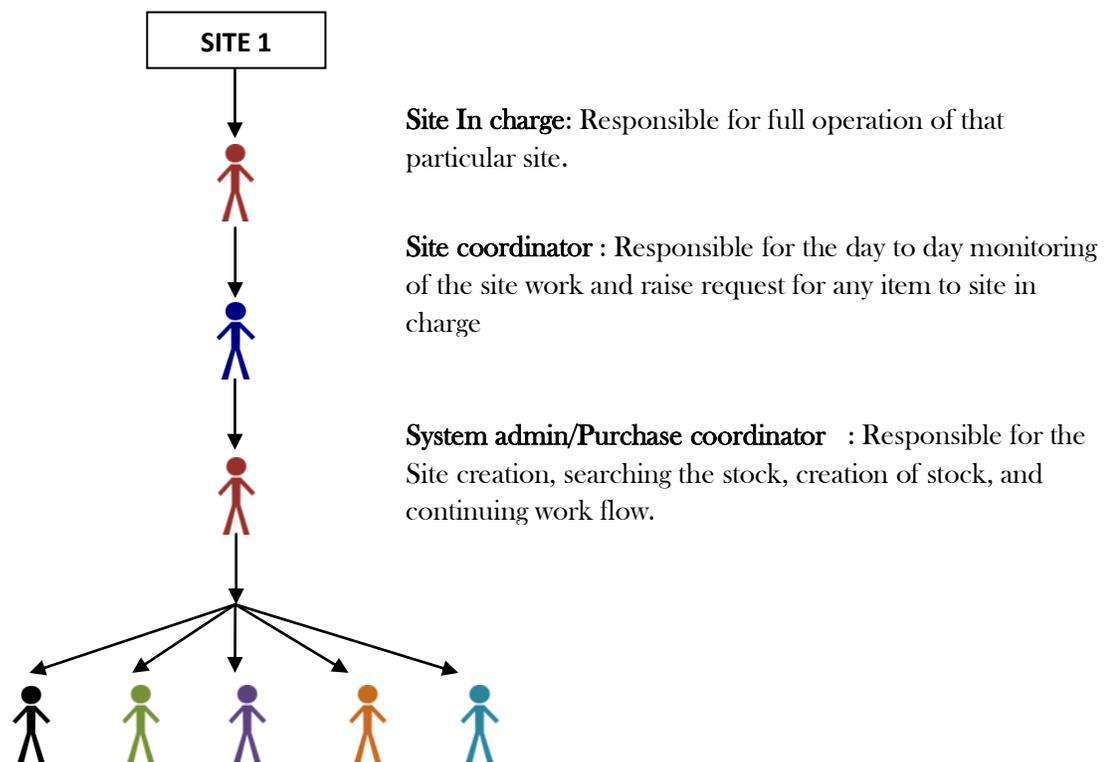
Business: - The Klystron Electronics Pvt Ltd provides service in the area of electrical infrastructure development and maintenance to housing project, shopping malls. The service area is widely spread in:

- Internal & External Electrification

- Area Lighting

- Substation

- Illumination System

- Facade Lighting

- Erection of Transformers, VCBs

- DG Sets, Motors, LT Panels

- Earthing Systems

- Green Building Technology

- Smart Grid

- Solar Energy

- Solid Waste management, etc

Divisions: - To achieve the above stated business goal Klystron Electronics Pvt Ltd, maintains independent and interlink divisions which collaborate with each other to complete the full process lifecycle of project.

1. **Site /Project:** Each and every contract of work is treated as a project or site. Each site/project is treated as independent unit of work. Each site requires specific type of equipment and material. Each site has a dedicated site coordinator and site in charge. Below is the site structure and hierarchy


Site In charge: Responsible for full operation of that particular site.

Site coordinator : Responsible for the day to day monitoring of the site work and raise request for any item to site in charge

System admin/Purchase coordinator   : Responsible for the Site creation, searching the stock, creation of stock, and continuing work flow.

2. **Purchase: -** The department which is responsible for new purchase of any equipment and material as well.

3. **Stock: -** Stock is the main inventory where all the list of material and equipment with their count.

   a) **Main Stock:-** Where all item need to be maintained. It is the main stock of company.
   b) **Site Stock:-** there is one site stock associated with each site. Whenever any request comes from site A then it's order must only go to associated site stock.

After the site closes the local stock should be closed but the stock should be in inactive state. No new request can be made to this stock, but one can search for reports of this stock. The reports can be tracking by

1) By Item Category
2) By Item code
3) By Date
4) Consumption within Range

Interaction diagram between departments.
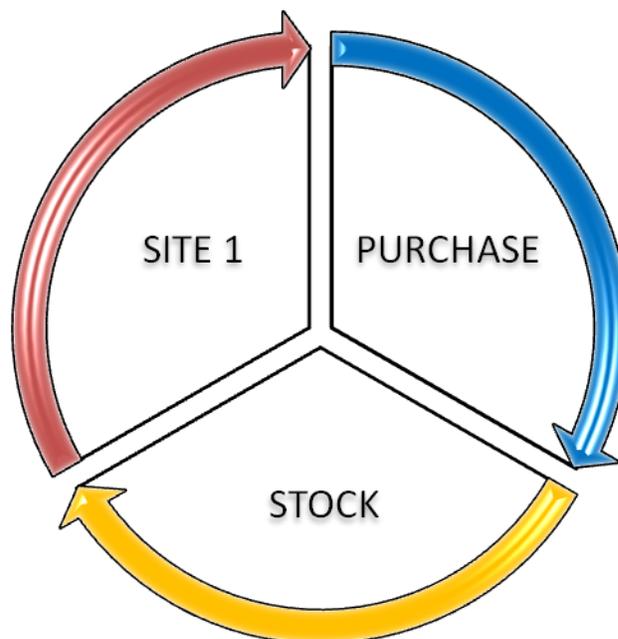
The current flow is cyclic

Types of item need to be tracked

1. **Material: -** Any consumable component is treated as the item/material like wire, cables, tapes, switches, boards, etc.
2. **Equipments: -** Any non consumable item like screwdriver, driller, cutter etc are treated as equipment

Current Workflow

Site :- At any point of time when site in charge feels requirement for the any specific item, he/she asks to site coordinator then if site coordinator feels he process the current requirement system admin .
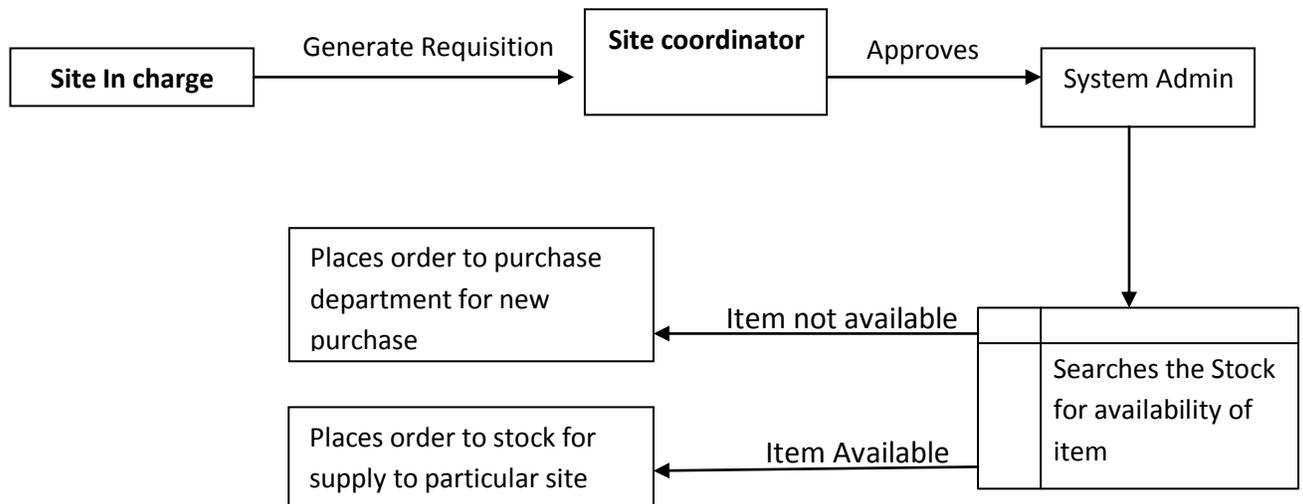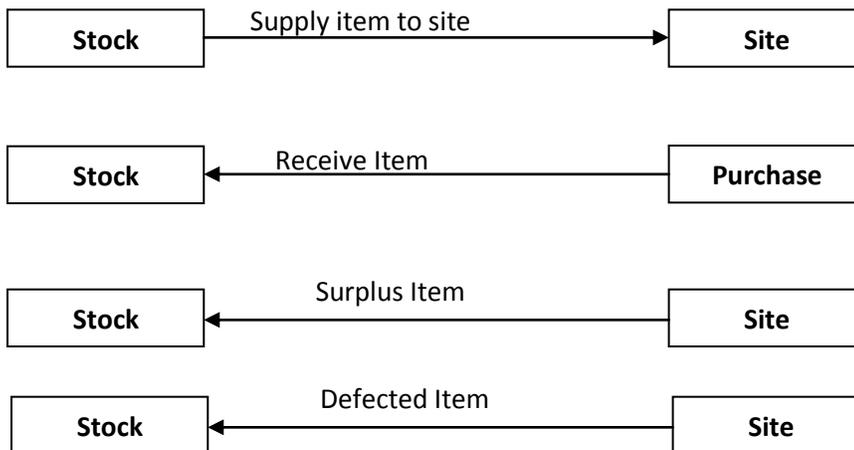

System Admin: System Admin receives Approved Material Indent. He can view Original Material Indent & Approved Material Indent. Here comes the role of system admin/purchase co-coordinator, Purchase co-coordinator/system admin will investigate stock and decides how many items to be placed from stock and which item need to be placed for purchase. Accordingly he will send Requisition for Purchasing of materials to Purchase Department and Requisition for Stock Transfer to Main Store Department. Whenever System admin receives request from the site coordinator, following task needs to be done.

- **Search the stock for the approved material list .**

- **In case material available in stock.** Will check the quantity and Places order to purchase department for new purchase.

- **In case material not available in stock.** Places order to stock for supply to particular site

  Purchase: When purchase department receives purchase requisition from system admin it seek quotation from its registered vender, and based upon price comparison it places the purchase order. After purchase it sends items to site.

Purchase	→	Stock
Purchase	→	Vendor
Purchase	→	Vendor
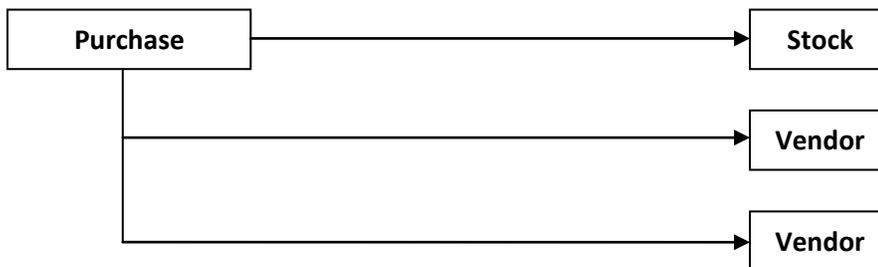
Stock: When stock receives request from system admin/purchase co-coordinator for the supply of particular item or equipment. It supplies it to specific site from where the demand is generated. When stock receives new items then stock update event is triggered. When any site sends any surplus material to stock then also stock is getting updated. If any item id defected then it should be returned to stock and stock should maintained a returned defected item.

Stock	Supply item to site →	Site
Stock	← Receive Item	Purchase
Stock	← Surplus Item	Site
Stock	← Defected Item	Site

Consumption: Materials are issued from Site Stock to Sub Contractors / Company's Personnel on FIFO basis for work front. At the end of the day excess materials out of the above issue are returned to site stock. Accordingly, site stock with value is updated. So, Sub-contractor wise and overall consumption record should be maintained.

There is additional requirement of various types of reports to run the business smoothly so each department seeks different kinds of reporting from time to time.

The reporting can be asked like following.

1) Each site in charge can view his/her stock's daily status or monthly status, according to item, item category, requisition type, requisition date, requisition status, etc.
2) System admin can view the reports regarding various status of stock, he/she may view the status of local stocks and main stock also. Based upon the status of stock he/she can decide the workflow.
3) System admin can also view record for final billable quantity of the item to client.
4) A summarized report can also be required for the average or perfect defected/consumed item list on particular type of site by annually, monthly or any time period.

The proposed system will have below kind of features.

Data Migration for existing list of items:- We are planning to segregate the data items by category and group. Will receive an excel file in defined format. Request needs to be raised to support team for updation of data if new excel has been received.

Reminder System: - Based on the specific time period for purchase requisition or use of any item on a specific site will be displayed on the software after user login. The messages are role based and each type of user can see reminder related to their own role. Like system admin will see the reminder for placing the order to purchase or stock. Similarly the Site will see reminder for the consumption of item is updated in the existing system or not, etc. Details will be described in our designed doc.