Systems Analysis: Requirements

INITECH Systems Analysis

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Background

Problem Statement

The scope of the company has reduced due to business priority changes. The asset stages, reporting dashboard and the two processes namely support and retire, have been removed.

The team must meet the security requirements of the system.

The company will be working on only 2 business functions, that are: Serialized asset tracking and stockroom management. In addition, the processes which will be supported are:

1)asset entry process

2)user request process

3)fulfillment process

Technology Solution

A centralized web-based application connected to a database maintaining the asset data along with its proper serialized and uniquely identifiable tags and state supporting report generation feature. Serialized assets, Stockroom Management, Asset Entry that includes Request Process and System Security are the four major functions that can be completed by the user.

Fact Finding Techniques

Document review technique will be appropriate in this scenario as it will help in analyzing the current system and determine the changes which must be made to achieve the goal. The document will provide us with all the functions in the software which will be needed to meet the requirements of the company and help in defining the workflow of the project. This information can be gathered from the documents provided by the company in which each function and process are explained in detail.

Observation of the current workflow will be another fact-finding technique which will be used in this case. Seeing the system in action provides additional perspective and a better understanding of system procedures. Personal observation also allows the analyst to verify statements made in interviews and determine whether procedures really operate as they are described. It will also have a greater impact in future as it will provide us the knowledge needed to test the upcoming changes in the new system and build good relationship with the users who will be using the system.

Questions:

1. What are the essential features required for the daily operations for your team?
2. How many stockrooms are available in each of the departments?
3. How many assets are in-stock?
4. What is the security control options that are available for the stockrooms?
5. What is the process for creating a stockroom?
6. Are stockrooms classified based on the assets that are stored in the stockroom?

Business Function 1

Serialized Asset Tracking

Purpose

Serialized Asset tracking is a collection of assets which are associated with the appropriate model or device which includes a serial number, asset tag, state of the asset, location, condition, model, and assigned to. For all, its movements, and transactions, include the following:

- Inventory transactions
- Field part movements
- Cycle counts
- Shipments
- Receipts

Each entry in the database represents one unique asset.

Process Map

Business Requirements

- Track serialized assets:

Every asset has a specific serial number. Serialized inventory tracks the quantity for a Stock Item and a serial number, when a serialized part is issued from stock.

- Estimating Asset States or condition of the assets:

  The serialized units may be placed into service, removed, repaired, returned to stock and re-issued for service. The lifecycle of a serialized unit can be tracked independently of the position where it is installed.

- Identifying the unique identifier for every asset:

  the Serial Numbers, which also serve as the Asset Tag ID, must be specified at the time that inventory is introduced into the system, i.e., during any transaction that adds on hand quantity such as a gain adjustment or a receipt on a Purchase Order.

- Selecting the stockroom if it is in the stock:

  A Stock Item is selected from a Stock Item record. When receiving a Stock Item, it will be visible in the Stock Item line.

- Selecting the assigned to if it is in the use:

  The items in the stock will be assigned by the asset manager if it is in use.

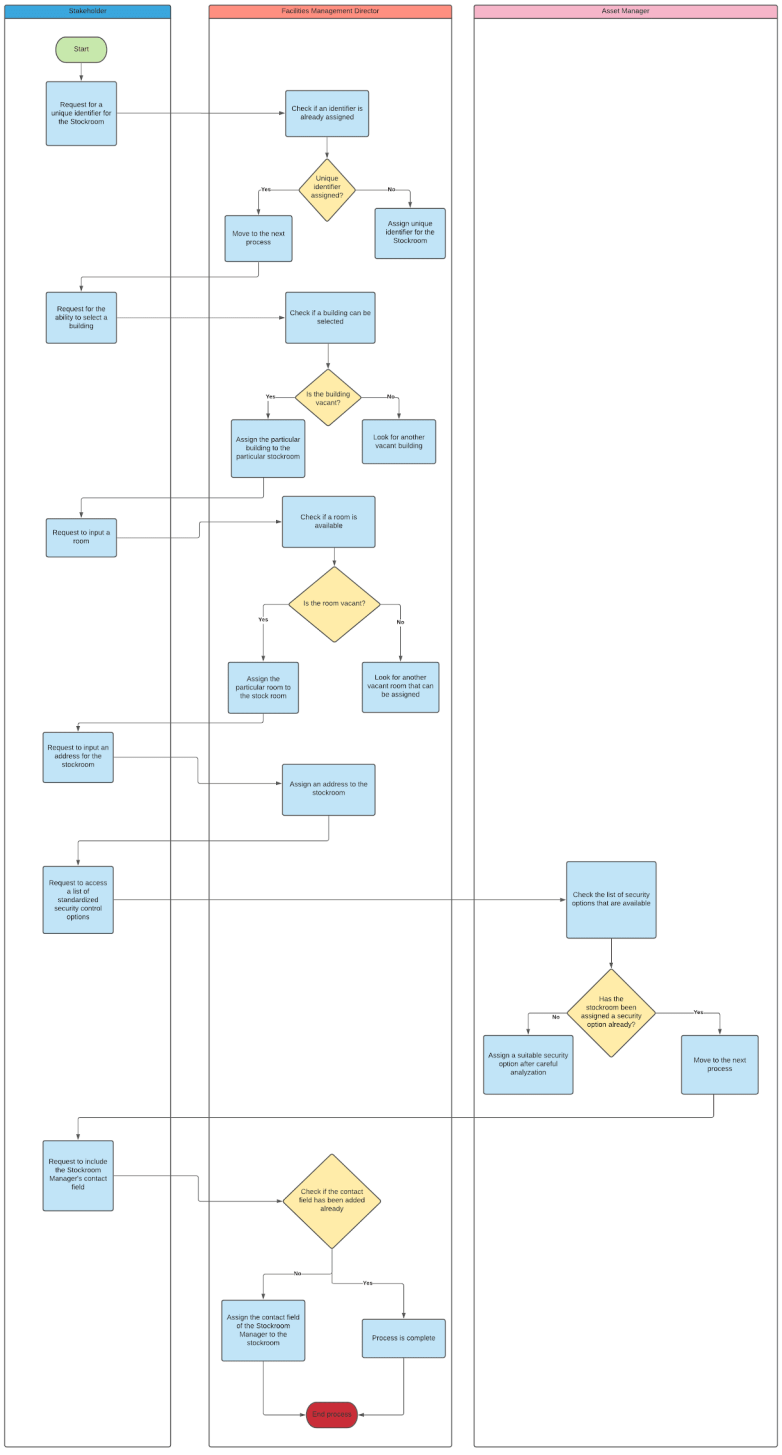
Business Function 2

Stockroom Management

Purpose

Stockrooms are separate standalone entities, places, or locations, consisting of a building identifier or a room that are needed to assign IT assets when they are in-stock. Stockroom management assists businesses in knowing exactly where their products or assets are, keeping an accurate count on all items, and making room for new orders. The Owners of a Stockroom include the Asset Manager, who is responsible for the devices that are in the stock room and the Facilities Management Director who is responsible for the room itself and all the surrounding infrastructure.

Process Map


Stakeholder
Facilities Management Director
Asset Manager
Start
Request for a unique identifier for the Stockroom
Check if an identifier is already assigned
Unique identifier assigned?
Yes
No
Move to the next process
Assign unique identifier for the Stockroom
Request for the ability to select a building
Check if a building can be selected
Is the building vacant?
Yes
No
Assign the particular building to the particular stockroom
Look for another vacant building
Request to input a room
Check if a room is available
Is the room vacant?
Yes
No
Assign the particular room to the stock room
Look for another vacant room that can be assigned
Request to input an address for the stockroom
Assign an address to the stockroom
Request to access a list of standardized security control options
Check the list of security options that are available
Has the stockroom been assigned a security option already?
No
Yes
Assign a suitable security option after careful analyzation
Move to the next process
Request to include the Stockroom Manager's contact field
Check if the contact field has been added already
No
Yes
Assign the contact field of the Stockroom Manager to the stockroom
Process is complete
End process

Business Requirements

- Unique Identifier:
- A unique identifier (UID) is an identifier that distinguishes one record from all others. There is a unique identifier for each stockroom in the system.
- Select Building:
- The system will give the stakeholders the ability to select a building.
- Input Room:
- The system will give the stakeholders the ability to input a room.
- Input Address:
- The system will allow the users to input an address.
- Standard list of Security Control Options:
- A standardized list of Security Control Options that include Physical lock and Key Card Access for the stockrooms will be provided by the system.
- Stockroom Manager Contact:
- The System Manager is made as the primary contact by the system.

Business Function 3

ITAM – IT Asset Management

Purpose

There are three main processes:

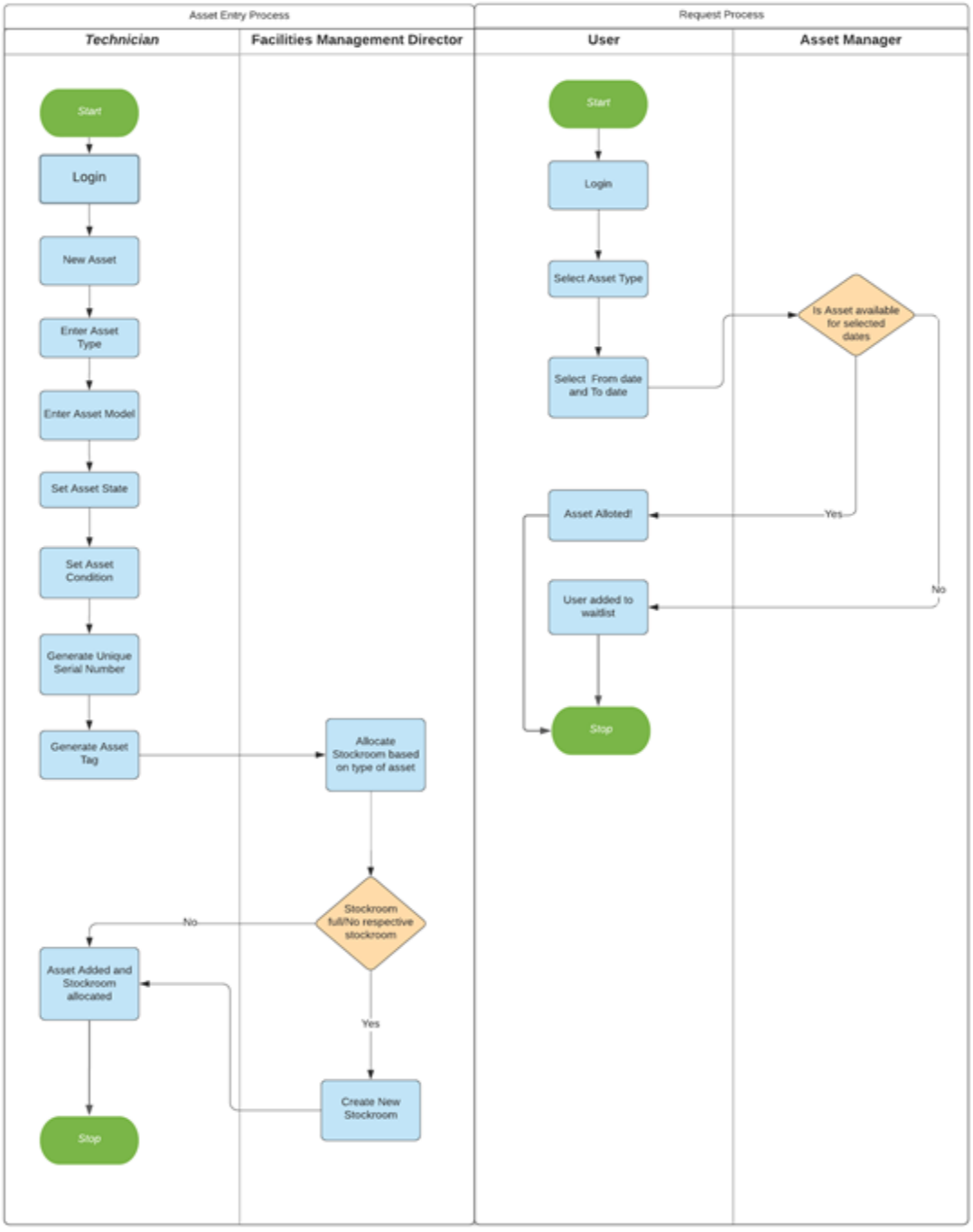
1)asset entry process

2)user request process

3)fulfillment process

The purpose of the Asset entry process is to create new entries for the new assets and provide facility for tagging and generating unique IDs for each asset. This process also includes provision for creating new stockrooms. The Request process facilitates the users to submit an order for an In-stock(available) item from the stockroom. The purpose of fulfillment process is to update the Review and assign the order update the asset record update the stock room or location and notify the customer the request is ready for pickup.

Process Map


Asset Entry Process
Technician
Facilities Management Director
Start
Login
New Asset
Enter Asset Type
Enter Asset Model
Set Asset State
Set Asset Condition
Generate Unique Serial Number
Generate Asset Tag
Allocate Stockroom based on type of asset
Stockroom full/No respective stockroom
No
Yes
Asset Added and Stockroom allocated
Create New Stockroom
Stop
Request Process
User
Asset Manager
Start
Login
Select Asset Type
Select From date and To date
Is Asset available for selected dates
Yes
No
Asset Alloted!
User added to waitlist
Stop

Business Requirements

1. Asset Entry Process

- Technicians will be able add new asset entries in the system
- The fields include a Serial Number, Asset tag, State, Model, Condition, Location and Assigned to.
- Serial Number is unique for each asset
- State field describes the current state of the asset
- State field includes the following states: In use, Available, On order, Lost/Stolen, and Retired.
- Model field specifies the model of the asset
- Condition describes the current condition of the asset.
- The Condition field includes the following values: New, Good, Fair and Unusable/Parts
- Location field specifies the stockroom in which the asset is located
- If the asset is assigned to an employee, the Assigned to will have the Name/ID of the employee/user.

2. Request Process

- All users will be able to request an available asset from storage.
- The input fields include Type of asset, start date, and end date
- User will be able to select the type of asset required from the following options: Laptop, Monitor, Keyboard, Mouse, CPU, Printer and Scanner
- If the asset is available, the user will be able to place a request.

3. Fulfillment process

- Review and assign the order update the asset record update the stock room or location and notify the customer the request is ready for pickup.

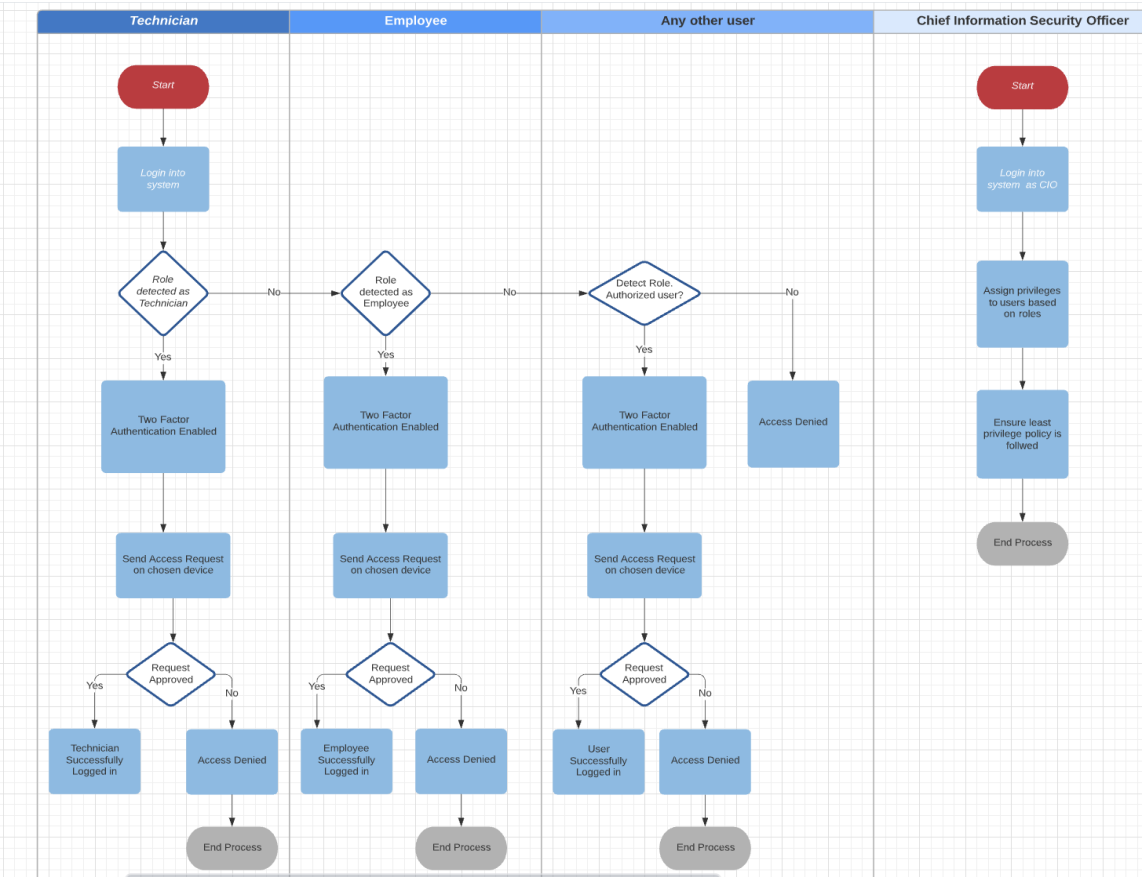
Business Function 4

System Security

Purpose

The system will include 2 factor authentication for the security purpose. It will help in ensuring the authenticity of the user and help him in getting the access to the system. Privilege policy will also be implemented, so that the users can be restricted to their respective roles and responsibilities.

Process Map



Business Requirements

- Only authorized users have access to application
- All users are expected to enable Two Factor authentication
- The system follows the principle of least privilege for roles
- Users will have privileges aligned to their roles only

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3)Serialized Asset Management Overview

https://canvas.asu.edu/courses/131892/files/52330529?wrap=1

4)Stockroom Management Overview

https://canvas.asu.edu/courses/131892/files/52330532?wrap=1

5)Asset Entry and Request Process

https://canvas.asu.edu/courses/131892/files/52330585?wrap=1

6)System Security Overview

https://canvas.asu.edu/courses/131892/files/52330584?wrap=1