Systems Analysis: Requirements

Milestone 2 System Analysis: Requirements

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Background

Problem Statement

Inefficient ITAM processes compromise data accuracy, model consistency, and asset tracking; impeding the organization's decision-making capabilities and operational efficiency.

Technology Solution

Implementing an integrated ITAM system with serialized tracking and stockroom management functionalities to address the data inconsistencies, model duplication, and streamline asset lifecycle tracking.

Fact Finding Techniques

Fact-finding is deeply important to the systems planning process because it forms the foundation for informed decision making and successful project outcomes. The systematic gathering and analysis of data through any of the five fact-finding techniques, conducting interview, analyzing organization charts, reviewing current documentation, observing operations, and carrying out user surveys, stakeholders can gain a better understanding of the organizational needs, user requirements, and current processes.

The first fact-finding technique to be used will be conducting interviews. The primary method of obtaining information during the preliminary investigation is the interview" (Tilley, 2019, p. 64). Uncovering facts is the purpose of information gathering, meaning the analyst's primary role is to ask questions that are pertinent to the system and to listen and record the responses properly. By utilizing the ability to tailor interviews to each interviewee, specific questions can be asked that are pertinent to the role of each interviewee, while having a standard set of questions everyone is asked. The people that would be interviewed are all levels of stakeholders within the organization, with an emphasis on leaders such as the Asset Manager, Director of IT Service Management, Facilities Management Director, Stock Room Manager, Director of Deskside Support, Director of Desktop Support, Director of Desktop Support in Materials Management Office, and Chief Information Security Officer.

The second fact-finding technique that will be used is reviewing current documentation. "Document review can help the analyst understand how the current system is supposed to work" (Tilley, 2019, p. 122). To make changes to the system, understanding the system is essential. By reviewing the current, and up to date, versions of the system's documentation the determination of what can be kept and what needs to be completely overhauled can be established. Examples of

documents to be reviewed include software package documentation, forms from all steps of the process, audit reports, management change documents, user feedback, Service Level agreements, asset inventory, and IT policies, among others.

Example interview questions:

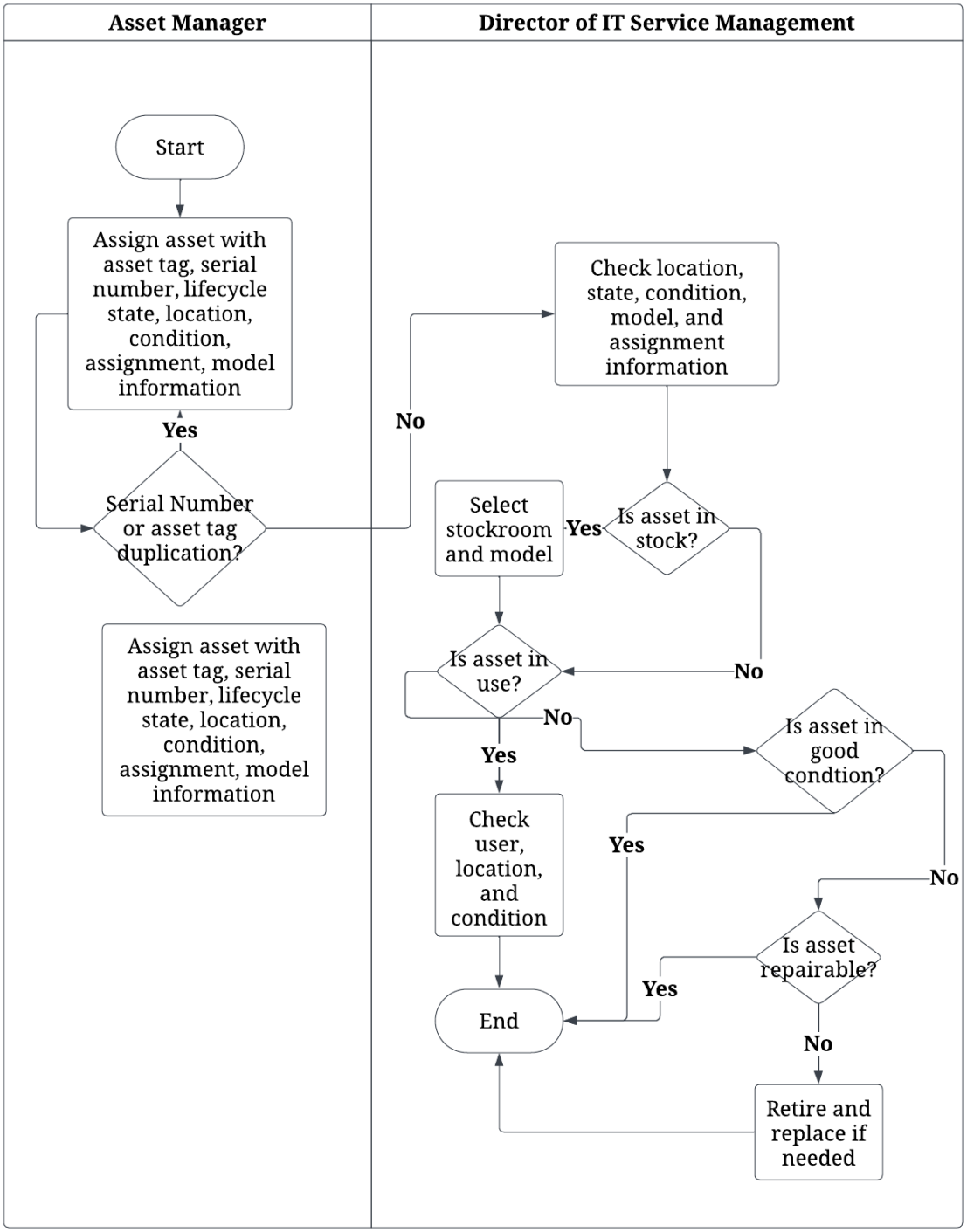
- How does the current IT asset management system track and maintain assets?
- How does your role or department access IT assets?
- What part of the current system works well and what parts are lacking?
- What is some system features you would like to see or to not see?

Business Function 1: Serialized Asset

Purpose

Serialized assets play a crucial role in enhancing the user experience by providing a streamlined and efficient way to manage and track assets within an organization. The primary purpose of serialized assets is to establish a unique identification system for each asset. Generally, identification is done through serial numbers and asset tags, ensuring that each asset is accurately and distinctly identifiable. This allows for precise asset tracking throughout the asset's lifecycle. For users, this means a more transparent and accountable process when accessing and utilizing IT resources. Serialization of assets enables quick access to asset information such as status, location, and user assignment. This also allows for proactive maintenance and security measures to be implemented and maintained.

Process Map


Asset Manager
Director of IT Service Management
Start
Assign asset with asset tag, serial number, lifecycle state, location, condition, assignment, model information
Yes
Serial Number or asset tag duplication?
No
Assign asset with asset tag, serial number, lifecycle state, location, condition, assignment, model information
Check location, state, condition, model, and assignment information
Is asset in stock?
Yes
Select stockroom and model
No
Is asset in use?
No
Yes
Check user, location, and condition
Is asset in good condtion?
Yes
No
Is asset repairable?
Yes
No
End
Retire and replace if needed

Business Requirements

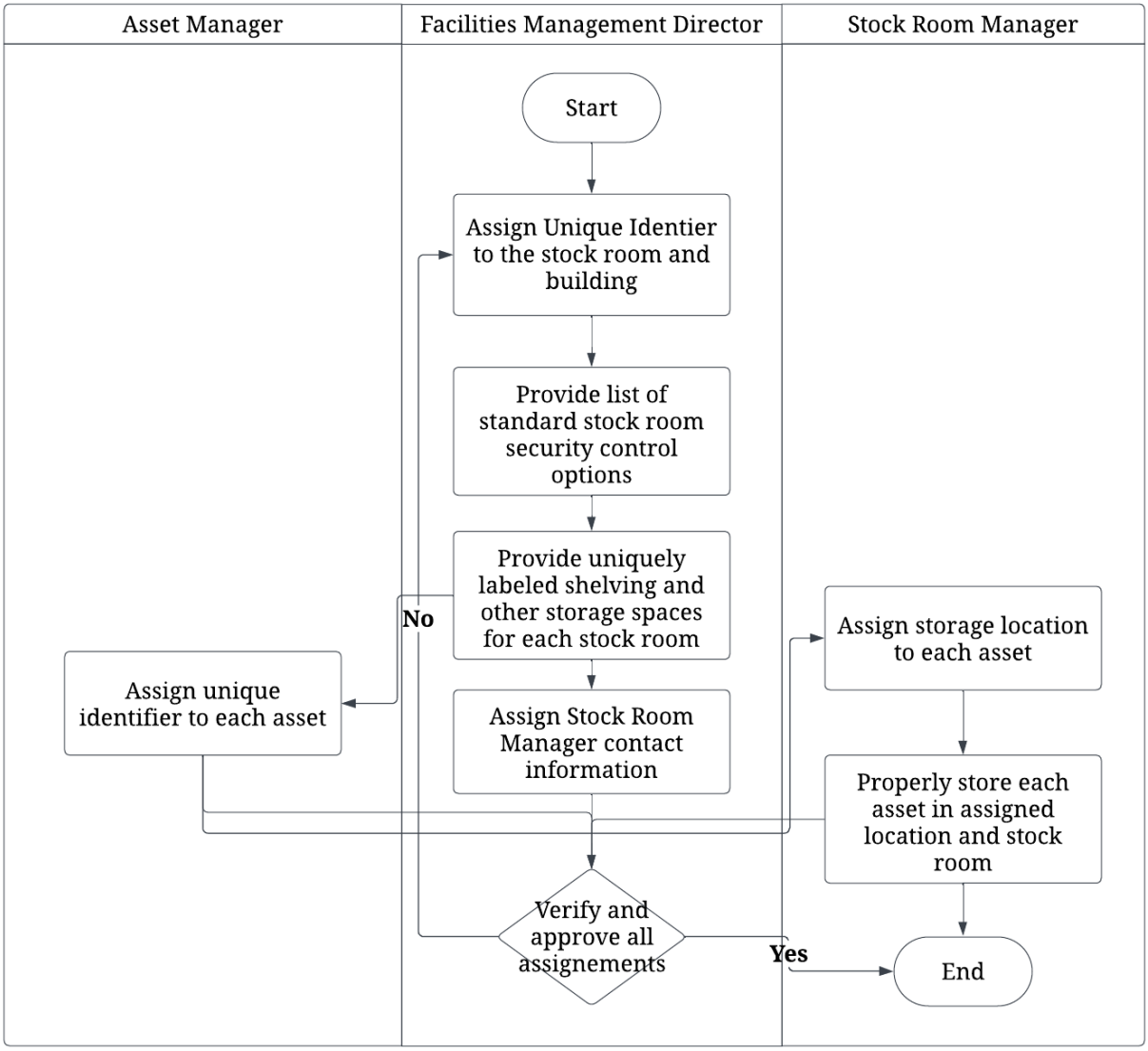
- The user will keep track of serialized assets in a repository.
- The system will have unique identifiers.
- The user will see different asset states including in use, available, on order, lost, stolen, retired.
- The user will choose a model from available stock via a web interface.
- The user will select an available stock room for an asset via a web interface.
- The user will assign assets to users via a web interface.

Business Function 2: Stock Room Management

Purpose

Stock room management serves as a fundamental component in optimizing user experiences within an organization. This optimization is done by ensuring efficient and organized control over the inventory. The main purpose is to provide users responsible for inventory management with a streamlined and accessible system to track, monitor, and replenish assets when needed. Effective stock room management allows users to easily locate and retrieve assets, without wasting time searching and disrupting workflow. The system improves user experience by maintaining accurate and up-to-date information on an assets status and location. By having an effective stock room management system, user experience is enhanced by ensuring assets are readily available and locatable.

Process Map



Business Requirements

- Each stock room will have unique identifiers.
- The stock room buildings will have unique combination assignments.
- The user will add room numbers.
- The user will add addresses.
- The user will provide a standard selection of security control options for each stock room.

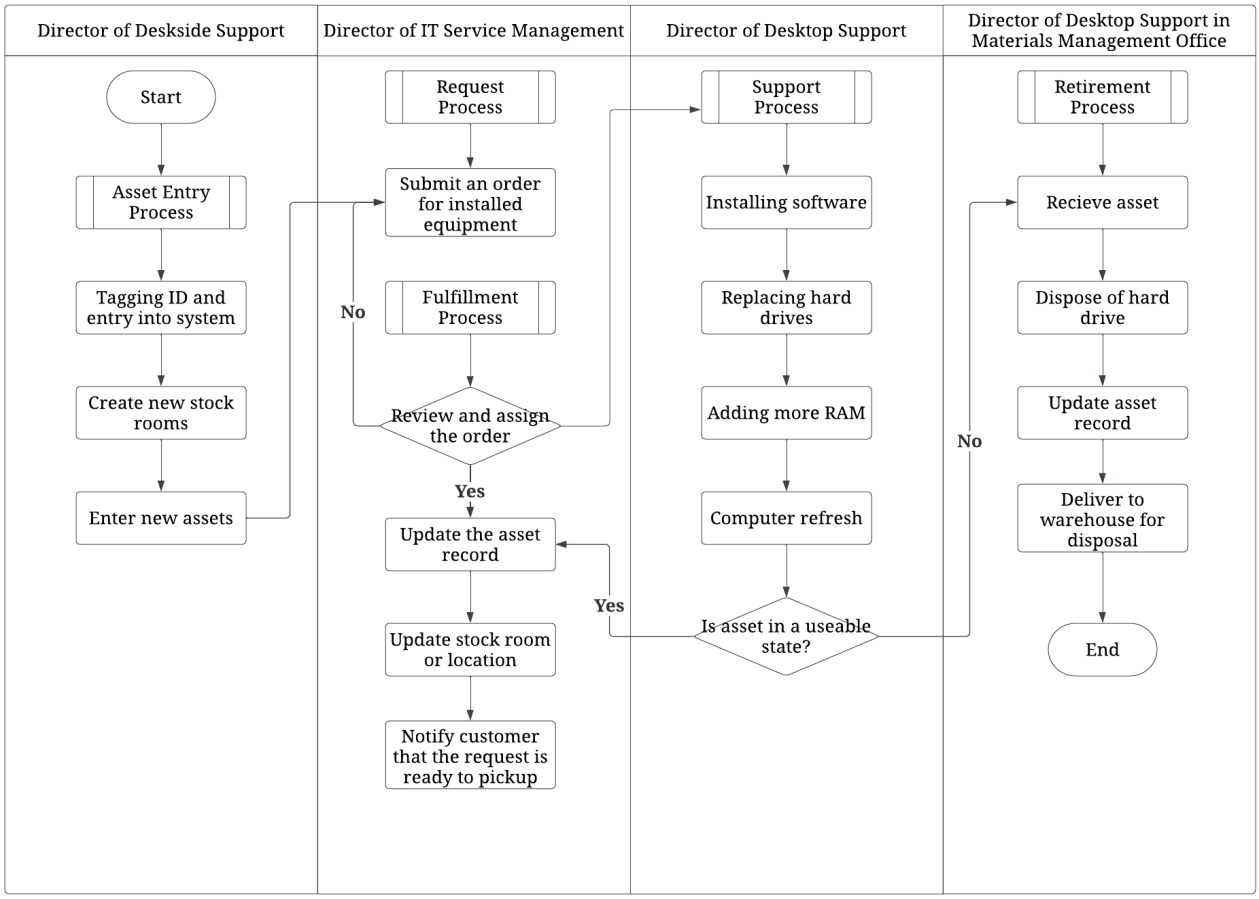
- The user will provide a standard selection of security control options for each building.
- The system will show the contact information for stock room manager for each stock room.

Business Function 3: IT Asset Management

Purpose

IT asset management plays a vital role in improving user experience by providing a systematic and user-friendly approach to oversee the lifecycle of IT assets within an organization. The main purpose of IT asset management is to streamline the tracking, maintenance, and utilization of resources, making sure that users have access to the tools they need in a timely manner that allows for optimal productivity. Efficient asset management allows users to easily identify and locate assets, resulting in a reduction of downtime from equipment availability issues or delays in accessing necessary resources. By centralizing asset information, a more transparent and accountable environment is created, allowing users to focus on tasks while ensuring that IT resources align with the goals of the organization. Ultimately, the purpose of IT asset management is to create a positive user experience by promoting accessibility, reliability, and efficiency in the use of IT assets throughout their entire life cycle.

Process Map



Business Requirements

- The user will create new stock rooms.
- The system allows assets to be tagged for identification.
- The user will enter new assets into the system.
- The system will include different phases of the asset lifecycle as labeled as states.
- Each asset that is tagged for identification will have a unique identification number in the system.
- Each asset will have its own state label in the system.
- The user will update each asset's state label in the system as needed.

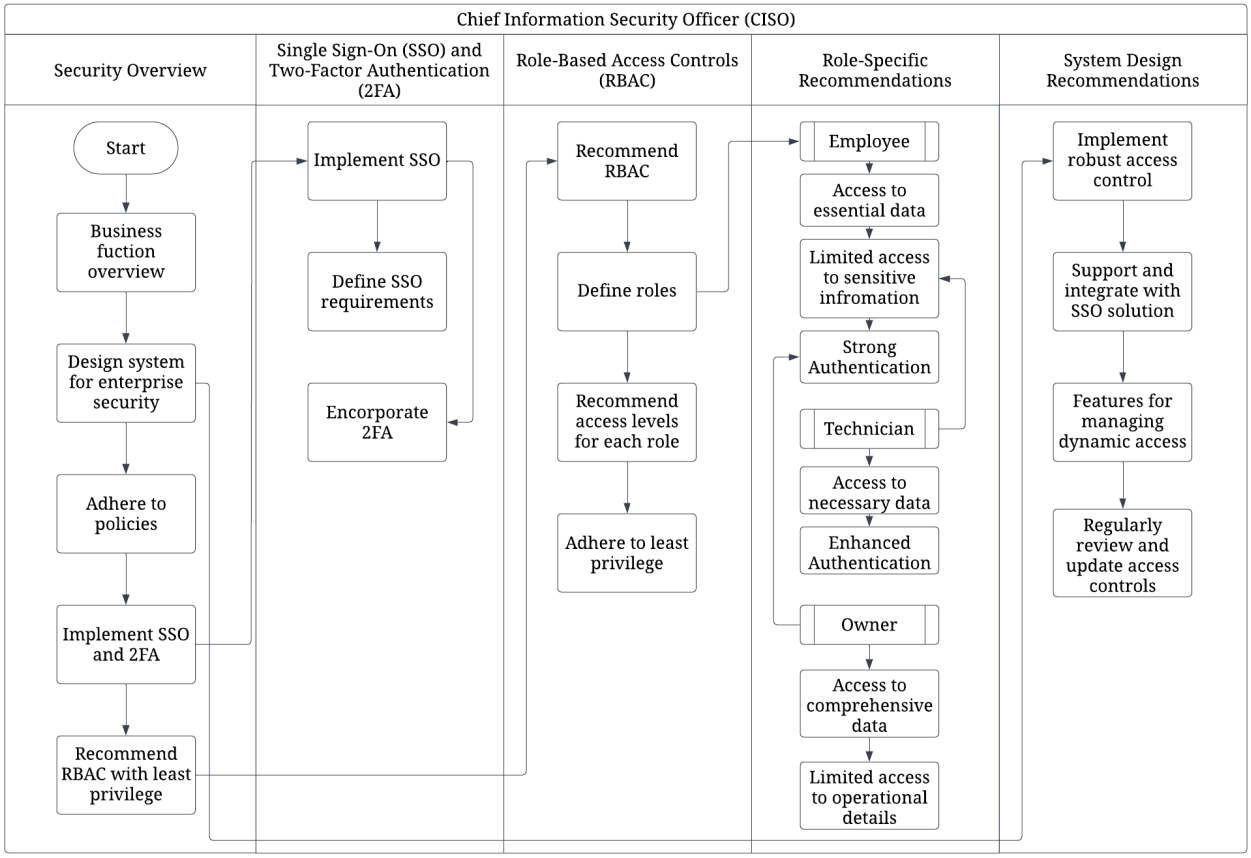
- Each asset will have its own condition label in the system.
- The user will update each asset's condition label in the system as needed.
- Each asset will have a location label in the system.
- The user will update each asset's location label in the system as needed.
- Each asset will have a model label in the system.
- Each user will request an asset for use in the system.
- Each user will request the type of asset for use in the system.
- The system will notify the user when the asset is available for use.
- The user will install software.
- The user will replace hard drives.
- The user will add RAM.
- The user will refresh computers.
- The user will retire assets that are not up to standards.
- The user will receive retiring assets.
- The user will properly dispose of the hard drive.
- The user will deliver dismantled assets to disposal warehouse.
- The user will update the asset's condition in the system.

Business Function 4: System Security

Purpose

System security aims to protect sensitive data, mitigate risks, and safeguard the integrity of IT assets from potential threats. The purpose of system security is essential to ensuring a secure and reliable user experience through the entire IT asset life cycle. By implementing robust security measures, IT asset management enhances user confidence in the safety and privacy of asset information. This helps to make a more positive user experience by assuring users that their data is securely handled and that the IT assets they use are protected well against vulnerabilities. Those vulnerabilities include unauthorized access, data breaches, and cyber attacks. A strong security framework in IT asset management supports a more transparent and accountable environment, allowing users to interact with IT assets while maintaining trust in the integrity and security of the system.

Process Map



Business Requirements

- The system will have a single sign-in authentication for each user.
- The system will have a two-factor authentication procedure for each user.
- The user will be granted access to the system after the two-factor authentication process is completed.
- Access to data within the system will be granted with the concept of least privilege.
- Access to sensitive information within the system will be granted with the concept of least privilege.
- Each user role will have their own level of access.

References

Tilley, S. (2019). *Systems analysis and design (12th ed.).* Boston, MA: Cengage Learning.