Milestone 1 System Planning: Project Charter

Group #2

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Table of Contents

[Company History 3](#_Toc95659821)

[Problem Statement 4](#_Toc95659822)

[Technology Solution Statement 4](#_Toc95659823)

[High Level Process Diagram 4](#_Toc95659824)

[Asset Management Team (AMT) 6](#_Toc95659825)

[IT Asset Service Team (AST) 6](#_Toc95659826)

[Project Benefits 9](#_Toc95659827)

[Stakeholders 9](#_Toc95659828)

[Project Plan 12](#_Toc95659829)

[Technology Tools: 13](#_Toc95659830)

[Current Solution 14](#_Toc95659831)

[References 15](#_Toc95659832)

# Company History

IniTech Solutions is a Michigan-based information technology services and system management firm. The corporation intends to provide small businesses with services such as workflow automation, maintenance, and staffing. The company's primary mission is to provide customer centric solutions that ration brands and enterprises. The organization's major focus is on

overcoming technical barriers to better serve clients. The business revolves around the

protection and monitoring of user devices and data. They also try to keep customer

administration running smoothly, as well as to resolve major issues before they spiral out of

control and threaten any business model. Furthermore, they provide a cost-effective subscription

model for IT security, monitoring, and remediation services to help customers operate more

efficiently. IniTech keeps track on data loss prevention and provides support to small enterprises.

Securing laptops, desktops, and servers, cataloguing all information technology assets and

system administrator credentials to weed out new threats, and providing antivirus, anti

ransomware, and patching to reduce the risk of business failures are just a few of their services.

IniTech implements small business IT support best practices for data protection and security

while keeping their clients in loop about what's coming next. It doesn't end there, IniTech also

provides help desk services to track and respond to customer requests and problems, ensuring

that they are resolved quickly. They keep a close eye on tickets and examine them on a regular

basis to see if there is any room for improvement. Duplication of data and lack of consistency

between models, condition, location, and assignment are the audit issues here. Other difficulties

included a lack of validation on unique identifiers such as serial numbers, spreadsheets that did

not document asset stages such as in stock, in use, and retired, and finally, senior

management's lack of reporting procedures.

# Problem Statement

IniTech Solutions is experiencing a problem as a result of poor resource management and tracking, which has resulted in issues such as data duplication and mismanagement, preventing them from achieving organization-wide visibility, real-time tracking and reporting, and integration with external sources.

# Technology Solution Statement

To resolve IniTech Solutions' crisis, it would be best to create a system where a database of asset information is stored and updated in real-time and can be viewed in an asset portal, on whose dashboard users can submit requests for assets that have already been allocated or request for a new asset, as recommended by IT auditors.

# High Level Process Diagram

The key flaws of IniTech Solutions are based on how they manage their assets during various stages of deployment, or rather how they mismanage them. The discrepancies discovered during the audit not only aid in pointing out problems, but also in understanding the current state of IniTech Solutions and formulating a modus operandi to help repair these issues and prevent this from happening again. We designed an ITAM system after evaluating the business case and the audit results, which will continuously monitor and track the status of the assets and update them in real-time.

There will be a dashboard in the system we're designing that will allow users from across the firm, regardless of department, to access information. This dashboard allows customers to keep track of asset status and availability, as well as request asset services such as repair, return, or disposal. While this is the project's front-end, the back-end is handled by two teams that are continually updating asset information and data, as well as monitoring and responding to user requests. Asset Management Team (AMT) and IT Asset Service Team (AST) are the two teams in question.

## Asset Management Team (AMT)

Data entry and data management are two of the AMT's most important functions. The AMT enters the process well before any of the other components of the system do. They clean up the inconsistencies in the data and develop it so that it's easy to integrate and won't cause problems in the future. They identify assets, create stockrooms, understand the state of presently deployed assets and gather data about them, and then use all of this information to update the database and prepare the dashboard for use.

The AMT updates the database whenever one of the assets is deployed, new assets are sanctioned, or older assets are discarded.

## IT Asset Service Team (AST)

The AST is in charge of asset deployment, repair, and disposal. They respond to user-submitted tickets. Typical reactions include cancelling the ticket due to asset or resource unavailability, deploying additional assets, and servicing previously deployed assets. Other responsibilities include asset disposal, if necessary, asset data gathering, and data transfer to the AMT, which refreshes the asset database.

**The Proposed Asset Management System**

Users can request new assets, return assets that have already been deployed, or have deployed assets repaired or serviced by the Asset Service Team using a dashboard that allows users to view asset availability in real-time and works on a centralized database created and constantly updated by the Asset Management Team. Despite the easily available data, the Asset Service Team double-checks the user's requirement and past asset history before responding to the request to avoid problems.

**Diagram

Description automatically generated**

***Flow chart of the Asset Management System***

# Project Benefits

1. An inventory management system secures an organization against variations in product demand and allows for more effective decision-making, resulting in a 30 percent increase in profit. Employee compensation, insurance for hiring or leasing a warehouse, and transportation costs could be eliminated. Through automation and technological innovation, data security, data visibility, and coordination between locations also can be enhanced.
2. Duplication and inconsistency are completely eliminated by establishing a centralized data repository. Determining key data and establishing mandatory fields like system\_tag\_id, employee\_id, project\_number, system\_model avoids missing values.
3. The use of technology reduces manual maintenance and manpower, allowing for a 20% resource optimization. Data integration solutions provide data cleansing improving data quality and data governance thereby transforming raw data into processed information that may be used for data analytics and financial strategy improvement.

# Stakeholders

The success or Failure of a system usually depends on whether it satisfies the needs of the user. Stakeholders come into the picture here and for this reason, it is essential to understand the user requirement and expectations throughout the development process. Many of the stakeholders are benefitted from implementing this technology solution, but the most important among them was Asset Manager from Asset Management Team, Director of IT Service Management and Service Fulfillment Team.

* As the client business grows, so does the technology requirement. Despite the benefits they promise to businesses, traditional data warehouses require massive investments of time, money, and expertise. On-premises servers must be built, managed, and maintained, and many companies find this scenario to be inefficient, wasteful, and expensive.[1] We would need a solution that is scalable, flexible, has significantly higher performance, greater visibility, long-term support partnership and capable of supporting the huge volume of incoming business data in the future. However, this solution also needs to be cost-effective, should have greater interpretability. Amazon Redshifts ticks all the above boxes and helps companies overcome this obstacle by providing a cloud-based suite of data management, processing, and analytics tools. The Column-oriented databases allows for increased speed when it comes to accessing large amount of data like asset management repository and perform massive data processing jobs quickly. The Massive Parallel Processing (MPP) feature allows the asset management team to process their tasks simultaneously rather than sequentially, which results in the large reduction of amount of time that needs to complete the task.Asset Management team is more benefitted by implementing this cloud-based storage solution by eliminating the technology factors such as change in rates of product in the future. The social factor such as increase in human population there by the increase in the large amount of business data can also be handled efficiently.
* Data Security and Privacy plays a major role when it comes to any technology. Every Business should always be prepared for the uncertainties and environmental factors such as weather patterns, wars, and natural disasters, which are subject to loss of customer and business data. Our solution of having the cloud-based data warehouse - Amazon Redshift and the Amazon S3 bucket for continuous data recovery and backup, provide high level data security thus by eliminating the environmental risk factors. In case of cyclone, weather storms or any physical damage to the company entity, the business can still withstand the uncertainties and prevents the loss of data.
* The term “Data Integration” allows the business unit to combine the data lying within multiple authorities or multiple teams. Data Integration in ETL Tools like Talend helps in efficiently improving the data quality thus elimination data duplication and redundancies.
* Thereby implementing such advanced technology solution for IT Asset Management, will increase the business portfolio and enables the company to make profit by at least 40% soon. This will eventually improve the economic condition of the company thereby reducing the financial wastages.

# Project Plan

Proper planning helps to focus on desired goals without outages, helps to avoid missed deadlines and reduces the risks involved. The complete technology solution is broken down into smaller project tasks which follows the SDLC methodology, timelines are assigned for each phase and cost values are estimated.

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Name** | **Duration** | **Start** | **Finish** |
| IT Asset Management Project | 70 days | Wed 9/1/21 | Mon 12/6/21 |
| Initiating | 4 days | Wed 9/1/21 | Mon 9/6/21 |
| Systems Planning | 8 days | Tue 9/7/21 | Thu 9/16/21 |
| Systems Analysis | 18 days | Fri 9/17/21 | Mon 10/11/21 |
| Systems Design | 12 days | Tue 10/12/21 | Wed 10/27/21 |
| Systems Implementation | 22 days | Thu 10/28/21 | Fri 11/26/21 |
| Systems Support | 4 days | Mon 11/29/21 | Thu 12/2/21 |
| Closing | 2 days | Fri 12/3/21 | Mon 12/6/21 |

# Technology Tools

The technology tools that will be useful for this system are as follows:

1. Dash (data dashboarding tool-frontend) is used for the creation of a web application
2. Amazon Redshift is used for database and warehousing
3. Amazon Web Services for server and storage resources.
4. Talend tool is used for performing Data Integration on the data source. (Transforming, mapping, and cleansing of data for data governance and data quality)
5. Python(backend) - Development of Application Programming Interface (APIs) is done by using Python language.
6. GitHub is used for web development.
7. Jenkins is used to continuously integrate changes to the build
8. Bitbucket is used as a central place for handling git repository, source code collaboration, and access control.
9. Jira is an agile project management tool used for planning, tracking, managing along with reporting.

# Current Solution

To handle the condition indicated in the problem description, IniTech employs certain

commercial-off-the-shelf (COTS) products:

1. MS Access
2. MySQL on the local system
3. Microsoft Office, etc.

The business continues to rely on outdated methods to address the challenge of data and asset management. These COTS are ideal for small enterprises, but they become less effective as the workforce develops. As a result, job efficiency suffers, and productivity suffers. Manual entries on excel sheets or handwritten notes are used by company-wide users, who then update the information on the excel page. As a result, redundant and erroneous data information is produced.

The data, on the other hand, is unreliable and occasionally inaccessible in the centralized database. Any data alteration must be done through a specific system, and not all employees have access to the file or data folder. The data information cannot be made available to other employees because this would jeopardize the security of the data and have a greater impact on the business in terms of security risks. As the workforce grows, these ineffective solutions must be replaced with those that are currently in use. Advanced software, such as Jira, an agile project management platform for planning, tracking, managing, and reporting data information, might be utilized to replace older approaches.

References

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2. “Initech Solutions Cyber Security Company.” *Initech*, [www.initechsolutions.com/cyber-security-company/](file:///C:\Users\divya\Downloads\www.initechsolutions.com\cyber-security-company\). Accessed 11 Feb. 2022.