**InITIAM  
Project Recommendation**

For the department of Information Technology

# Problem Summary

With the advent of mobile computers and the internet, organizations are increasingly becoming de-centralized. Some have adopted this approach for financial reasons and some for environmental reasons. Whatever the reason, the trend of organizations accommodating remote workers is growing rapidly. Walker Company is no stranger to this reality.

Since Walker Company first began encouraging employees to work from home, organization policy has evolved to allow workers to contribute from anywhere in the continental United States. Now, Walker Company’s technology assets are geographically isolated with little ability to manage them effectively. The change that has occurred in 2 years has resulted in decreased informational security, visibility, and ability to manage.

The recommended InITIAM project seeks to remedy these organizational pain points by implementing software that will record and monitor all technology asset’s hardware, software, and user usage data. InITIAM will provide insight into this data through its secure web portal by visual representations and charts. To allow Walker Company’s IT department to manage and secure their assets, the software will be equipped to automatically update, and host differing versions as determined by management’s needs. The development of these updates is out of project scope and is to be pursued exclusively by Walker Company or in contracted future collaborations with InITIAM. Included in this project recommendation will be a half day of training and renewable 12-month support.

# Application Benefits

InITIAM will allow management to clearly see their technology assets’ health, identify problematic patterns, and understand how their employees utilize their machines. These benefits will allow management to form educated and data-based maintenance, problem prevention, and technology provision execution plans. In doing so, Walker Company will realize greater efficiency in its technology utilization, allowing senior level management to better capitalize on its technology and acquire a greater market share.

# Application Description

InITIAM will be composed of two background client services, a web server, a secure user interface, and a backend database system. The web server will act as the middleman, securing and distributing data between the client software, database, and user interface. The web server, database server, and user interface will be hosted in the cloud on Digital Ocean, to reduce the maintenance impact on Walker Company’s IT department. Cloud hosting will additionally align with Walker Company’s need to be available regardless of location. As Walker Company’s employee base increasingly becomes remote, so do their IT employees. IT will need to be able to access the admin user interface portal regardless of location.

# Data Description

Data will be collected and cleaned by the client services, posted to the webserver, and stored in the database. This data will contain numerical representations of hardware specifications and performance, as well as character strings representing hardware, software, and user identifications. Independent variables in this dataset will include the hardware specifications, software specifications, and users. The dependent variables will consist of performance and usage data such as disk space. Certain technology power users may present themselves as anomalies in the data. Their usage may skew the organization-wide view of technology usage. The primary limitations of the data collected is that it cannot inform the IT team of why certain trends are occurring. While this is a common problem in data analysis, InITIAM hopes to be able to partially remedy this via the ability to update core functionality.

# Objectives and Hypotheses

The application should achieve the following objectives:

* Provide two background client services that can be installed by an executable or MSI file. This will provide an easy method of client deployment.
* Provide a web server to communicate between the client services and database, securing all data being passed. Data, client, and server security is utmost to InITIAM, given the valuable administrative functions over the technology assets.
* Provide a database server that can store information about clients and their hardware, software, and user data. The database server will ensure data security, maintainability, and accessibility.
* Provide a user interface that will allow access to visual representations of InITIAM’s data, as well as administrative functions.
* Provide a half-day training to assist in achieving a successful implementation.

If InITIAM successfully collects and displays hardware, software, and user data according to the objectives, then Walker Company will be able to employ greater technology management, enabling greater agility in responding to trends and environmental risks.

# Methodology

For this InITIAM project, the SCRUM methodology, a subset of Agile, will be used. SCRUM has been chosen to get the product implemented as quickly as possible with the greatest value possible. Because Walker Company has been shown to rapidly evolve in this current global environment, SCRUM will allow InITIAM to quickly respond to the ever-evolving needs.

Walker Company has suggested it currently has basic and non-specific requirements for the data-collection and user interface portion of the project. Consequently, the development of the data collection, database, and user interface will require constant product updates and feedback in order to generate the most value for Walker Company.

# Funding requirements

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| --- | --- | --- | --- |
| Description | Quantity | Price | Total |
| Planning and Design | x10 | $45 | $450 |
| Development | x80 | $90 | $7200 |
| Canvas JS (Charting) | x1 | $400 | $400 |
| Training | x4 | $120 | $480 |
| Professional Support | X12 (month) | $200 | $2400 |
|  |  |  | $10930 |

# Stakeholders Impact

The primary stakeholders in this project are the Walker Company’s IT department and employee users. The IT department’s management ability and asset visibility will be greatly increased, and users’ level of technology service will be improved. Secondary stakeholders include senior management because their ability to quickly act on market capturing opportunities will be made more efficient by greater technology prediction, control, and utilization.

# Data Precautions

While the data being collected is not particularly sensitive or protected, it is very important to maintain confidentiality from outside eyes. Having intimate knowledge of an organization’s technology opens various attack vectors for those with nefarious intent. Therefore, InITIAM treats its data security with focused intent. All communication between the client services, database server, user interface, and web server will take place on encrypted protocols. In addition, InITIAM’s software will implement a secure login portal to access the user interface utilizing modern password protection mechanisms.

# Developer’s Expertise

InITIAM was founded by Collin Walker who received his bachelor’s in computer science from Western Governors University. He worked as database administrator for his local municipality for five years, which included the COVID-19 pandemic. During this time, Collin and his IT team increasingly saw users working remotely, including themselves, and faced many new challenges. Collin’s experience and personal understanding of medium sized organization’s needs led to the creation of InITIAM. Since then, InITIAM has seen nation-wide adoption by 20+ municipalities, 132 companies, and 20 non-profit organizations. InITIAM’s focus on agility, visibility, and efficiency has put IT back in the hands of management for thousands. We hope you will trust us to deliver the same value, sought by so many others.