New World Times Project Proposal - Phase One

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Summary

This business proposal for New World Times (NWT) made by E-SW details a plan of action that will enable us to complete the tasks outlined in the project request. The required tasks involve digitizing 25 years of collected physical documents into an easily manageable, accessible, and secure computerized storage solution that will serve NWT moving forward. With the outlined plan we expect this project to be completed within a year of the start date.

Feasibility

Digitizing mass amounts of physical documents is a huge undertaking that is prone to human error. Yet, here at E-SW, we specialize in developing unique and efficient solutions to key issues in the industry. In the past, we have solved issues involving creating complex and highly robust databases that will be used on a daily basis.

At E-SW we understand the importance of the integrity of the information that will be stored. If selected to move forward with this project we will take great care to create a solution suited to your needs that will future proof your data storage techniques without sacrificing quality.

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PLC

While working on this project we intend to follow a strict Product Life-Cycle (PLC). This will enable us to implement a framework that will allow us to manage the project successfully from its earliest stages, to the end of life. For more information on what a PLC entails and its importance, please see the link provided in the appendix for more information.

Important review dates for the project are as follows:

- Exploratory Phase - January 1, 2020
    - In this phase, we plan to explore the problem in depth so that we understand exactly what is needed to develop an elegant solution
- Planning Phase - January 7, 2020
    - After understanding the problem more fully we intend to start implementing a plan of action
- Development Phase - February 1, 2020
    - With the problem understood and a plan implemented we will start developing the necessary items to successfully enact the aforementioned plan.
- Refresh Phase - December 1, 2020
    - With development nearing successful completion we will begin providing the necessary support and documentation to insure the proper function of your solution.

Material Review

With initial knowledge of the project at hand, we believe a three-team solution would be ideal for completing this project. One team will deal with scanning documents into a cloud-based storage application. While these documents are being scanned, another team will manage and categorize the scanned documents adding the necessary metadata to allow for the author, subject, and geographic-based queries to take place. While these processes are taking place, a third team of developers will design and implement the software and hardware required for a networked database. They will take into consideration the security of the information being stored, scalability, and ease of access. Designing a useful front and back end will also be key to the success of the project.

The front-end section involves a user-friendly interface, or client that can be used by verified users to access and manipulate the information stored. We plan to implement a secured web based client to enable access from any location.

The back-end section involves managing the data stored and categorizing it. This process will ensure the safety of the data and enable specific queries to take place with great speed.

This plan will enable us to maximize the amount of time that is spent categorizing and scanning your files into a database. With our current projections this will allow us to complete the scanning process and implement a database within the one year time requirement.

Scanning Technology

We plan to split up the process of scanning and categorizing the documents into two teams. One team will deal with the physical process of digitizing the documents while another will concentrate on categorizing the documents based on date, author, subject, and geographic area. This will enable the data to be more easily entered into a database later down the line.

We will utilize high-quality feeder based scanners that automatically upload all files to the cloud. This will free the first team to concentrate on collecting and documenting all necessary files while ensuring the safety of the data that is being created.

A cloud service that has already been developed will be used to store the scanned documents. This will minimize costs and enable us to use industry-standard security to ensure that your data isn't compromised. In addition, this will allow the other team to access and categorize the data with multiple machines speeding up their tasks and decreasing the time for them to finish their project..

Schedule

- January 1, 2020
    - Cement necessary requirements and develop detailed plan.
    - Begin the process of digitizing all documents.
- January 7, 2020
    - Specify necessary requirements for successful implementation.

- January 14, 2020
    - Acquire necessary hardware and software.
- February 1, 2020
    - Design front and back end portions of the database.
- March 1, 2020
    - Implement database.
    - Begin loading database with scanned information.
- December 1, 2020
    - Complete the process of digitizing all documents.
    - Validate and verify solution.

Environment

- Multiple feed based scanners with cloud integration
    - Please see appendix for recommended scanning hardware
- Prebuilt industrial servers to host the database
    - Server will include data redundancy to prevent loss of information
    - Please see appendix for recommended server hardware
- Workstations to upload and categorize all scanned documents
    - Workstations will be provided by E-SW
- Web-based front end with industry-standard encryption and security to enable employees to access all information on or offsite

Database

We plan to implement a database using Microsoft SQL Server. This database solution is adopted industry wide and is designed to be a large scale enterprise solution for multiple platforms. We will develop a web based front-end interface to access this localized server from anywhere with internet connectivity. To ensure the safety of the data we will implement industry standard encryption techniques and store daily backups on a third-party cloud service. With this method, you will only ever be setback at most, a single day. For more information on the Microsoft SQL platform please see the appendix.

Appendix

Information on the product life cycle (PLC) and why it is used on successful projects.

Product Life Cycle

Proposed scanning hardware.

- Capable of batch processing 100 pages per minute.
- Assuming 100ppm for 8 hours a day, 48.5k items can be processed every day on a single machine.
- The number of machines required will be detailed once the quantity of documents is verified.

Fujitsu Image Scanner fi-7700

Proposed Server hardware.

- Highly customizable to your storage needs.
- Supports raid arrays to ensure data integrity.
- SSD storage for maximum speed and reliability.
- Well known manufacturer with verified long-term support.

PowerEdge XR2 Industrial Rack Server

For more information on Microsoft SQL Server and why it is accepted industry wide.

Microsoft SQL Server