[A.T. Technologies L.L.C.]

Web-Based CRM Proposal

[***ErgoS*** **:** *The Ergonomic Resource Gateway and Office Solution*]

[Alexander Tolan-Hoechst]

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WESTERN GOVERNORS UNIVERSITY

CONTENTS

A. Introduction

A1. Introduction and Purpose Statement

A.T. Technologies L.L.C. is an information structuring and solutions company that has years of experience delivering prompt and thorough products that enable businesses to more readily embrace and utilize the resources and services that makes their company unique. For **MJ Logistics Gaming Company**, we are offering a platform to organize and make ergonomic their *Customer Relation Management* (*CRM*) solution.

This web-based *CRM* solution that we are proposing is titled "***ErgoS***".

Our aim is to provide a *CRM* system that is human-centric and adaptable to the ever changing landscape a company can face. We are offering a scalable, cloud-deployable web-based landscape that will enable **MJ Logistics Gaming Company** to leverage their resources and strengths to meet the needs of their customers with our product the *"Ergonomic Resource Gateway and Office Solution"; **ErgoS***.

A2. Overview of the Problems

MJ Logistics Gaming Company requires a platform that is adaptable and will pair with its increasing growth as a dominant company in its sector. ***ErgoS*** will provide solutions to the issues associated with this advancement by being a scalable web-based solution that operates in the cloud, where more resources can be applied to the platform if necessary at any given time.

We will also be providing assistance with the transformation process from the solutions already in place to our more updated ones. Namely, we will be embracing efforts to upgrade company systems to accept our solution, switching some of the existing devices to become online.

And, as to cater to the request to keep current business processes as much as possible, we will have to more fully examine the solutions and environments in place on both a board and detailed level to address what must be changed or otherwise integrated into our solution.

A3. Goals and Objectives

Our mission is to cater to the needs expressed and provide a solution that will embody the following:

Goal 1: To Create a Comprehensive, Human-Centric Company Solution by:

***Objective 1**: Developing a product that performs all necessary business and user functions;*

***Objective 2**: Integrating the technical solutions into a simple yet suitable environment;*

***Objective 3:** Emphasizing the usability of all critical features in the solution.*

*Through recognizing and implementing the various specific needs of the requested CRM infrastructure, we will provide **MJ Logistics Gaming Company** with a holistic solution that caters to both the overarching business and the individual user. While keeping the end user as paramount, we will strive to create a product that is centered around the person using it.*

Goal 2: To Renovate Existing Systems and Grow New Solutions by:

***Objective 1:** Reviewing the already working systems and their current functions;*

***Objective 2:** Reorienting them to a more uniform, scalable design;*

***Objective 3:** Generating new solutions were necessary to expand system capabilities;*

***Objective 4:** Underlying processes with cloud technology for adaptive resource utilization.*

*Through the examination of the current infrastructure at **MJ Logistics Gaming Company**, we will be able to identify current viable systems and integrate upon them. This approach will assist in keeping already innate functions present while also growing the system to provide for expanding business needs. And to provide for current and future growth, prioritized implementation of more scalable architecture will leverage online cloud resources and will help to future-proof company systems.*

Goal 3: To Provide Scalable Architecture for a Growing Company by:

***Objective 1:** Establishing a software architecture behind the company system that is efficient;*

***Objective 2:** Utilizing cloud technologies to provide flexible and scalable computing.*

*Through reorienting the current systems to be casted on scalable architecture that is cloud enabled, **MJ Logistics Gaming Company** will be able to meet current and future operational domains. And because cloud resources are dynamic in both power and pricing, there will be comprehensive benefits across the business as a whole.*

A4. Prerequisites

Here is an overview of what steps need to be gone on the consumers side for us to implement ***ErgoS***:

Number	Prerequisite	Description	Completion Date
1	Current Systems Analysis	**A.T. Technologies** will need to be given access to the current systems being used by **MJ Logistics Gaming Company**. We will need to assess the current functionalities and architecture of the system and work with the consumers IT team for guidance in exploring specifics of the solution.	06/02/2025
2	Cloud Environment Establishing	**MJ Logistics Gaming Company** is responsible for obtaining a cloud environment that can support *Linux* to host the architecture we are providing for them. **MJ Logistics Gaming Company** will be responsible for all *PaaS* and *IaaS* functions needed for our *SaaS* solution that we are providing with ***ErgoS*.**	06/20/2025
3	Cloud Integration	For implementation of our product, **MJ Logistics Gaming Company** will provide ample access to their purchased cloud environment. **A.T. Technologies** will work with the consumers IT team for this portion to install ***ErgoS*** using the prior systems programming languages**.**	06/23/2025
4	Product Training	Once our product is effectively integrated onto the provided cloud environment, **A.T. Technologies**, jointly with **MJ Logistics Gaming Company,** will host training on ***ErgoS*.**	07/01/2025

A5. Scope

A.T. Technologies will be responsible for developing and delivering a *SaaS*, *CRM* product for **MJ Logistics Gaming Company** contingent on the acceptance and completion of the above prerequisites. The scope of this project includes the requirements listed in Section B of this proposal. The overall vision and an overview of these required items are expressed in the following:

- *Information Reporting*
- *Multi-Browser Compatibility*
- *Cloud Hosting + Storage*
- *2-Way Microsoft Outlook Integration*
- *Task and Message Tracking*
- *Role-Based UI Dashboards*

As stated via the aforementioned prerequisite, **A.T. Technologies** will not be involved with the maintenance of the cloud environment itself, but only the *SaaS* elements that will be implemented on top of the environment. Further configuration of the product after delivery will not be included in the terms of this solution's proposal, but may be added as an addendum if future needs exist. Product training will consist of a 1 week course of 1 hour classes supported by **MJ Logistics Gaming Company's** IT team, led by **A.T. Technologies**. Course documents will be provided to the consumer for internal reference and training use after the course has concluded.

A6. Environment

The backend environment for ***ErgoS*** will be a *linux* based system whose functionalities will be written in a combination of *Java* and *SQL* and hosted on cloud servers from a hyperscaler of their choice (such as Amazon's *AWS*, Microsoft's *Azure*, or Google's *GCP*). Network redundancy in office locations is recommended to mitigate connectivity outages. ***ErgoS*** must be accessed on company devices via a secured virtual network to the web-hosted frontend using the browsers: *Chrome*, *Safari*, and *Firefox* (mobile device versions of these browsers are also viable).

The frontend environment will be deployed as a user-friendly web browser setting that enables simple use of the *CRM* operations including messaging, reporting, and contract management. Messaging will be done through an integrated version of *Microsoft Outlook* that tags messaging with tracking identification. Role-based permissions will be utilized to make accessible company contacts. Permissions will also be used for accessing and modifying permission for company data, namely with Reporting functions. Also, contract management will be performable through the web UI dashboard and also be contingent on permissions of the given user allotted by **MJ Logistics Gaming Company**.

A.T. Technologies is responsible for the product of ***ErgoS*** as specified elsewhere throughout this proposal, while **MJ Logistics Gaming Company** is responsible for the management, upkeep, and scaling of the underlying cloud systems. Upgrades to the system are not included in this proposal, but can be later drafted and amended to this agreement upon approval by both parties.

If there is a software-side error that is affecting the ability of ***ErgoS*** to perform its tasks as written in this proposal, **A.T. Technologies** will be responsible for its maintenance to keep the software running successfully. Other technical support for ***ErgoS*** will not be done via a direct line of communication between the two companies, but rather will be provided to **MJ Logistics Gaming Company** by means of guides and design documents that will be given for company use as part of product training during the final period of this proposal's implementation.

Before the ***ErgoS*** project is considered complete, the program will be tested thoroughly on company systems to ensure its behaviors perform as expected. Troubleshooting may incur, and will be resolved promptly by the **A.T. Technologies** team.

B. Requirements

B1. Business Requirements

ErgoS will provide **MJ Logistics Gaming Company** with high-level dashboards that connect users with internal resources and efficient processing functionalities. Included in this area are the tracking of sales, data reporting, role-based permissions, and an *Outlook* connection. These different capabilities of the ***ErgoS*** interface will allow users to readily interact with the information that they need via a web-accessible architecture.

B2. User Requirements

ErgoS will provide a solution for **MJ Logistics Gaming Company** that caters to their varied and growing needs for web-based operations. By providing a dynamic software that can perform with changing traffic, **A.T. Technologies** will enable the consumer to meet current and future performance needs for their systems. Furthermore, by utilizing cloud based technology paired with adaptive web browsing and platform tools such as *Docker*, ***ErgoS*** will supply connectivity to a plethora of different browser applications such as *Safari, Chrome, Firefox*, and mobile phone browsers as well - providing accessibility that embraces the end user.

B3. Functional Requirements

ErgoS will provide **MJ Logistics Gaming Company** with a *CRM* that automatically applies tracking to all messages sent and received within the system. This will allow for back checking dialogue paths during all business tasks. And, by coding all types of message processes with unique numbers, a reviewing of the attached tracking data that is embedded in any portion of messages can be used to find and identify happenings within the business for reasons such as internal audits.

B4. Non-Functional Requirements

ErgoS will provide **MJ Logistics Gaming Company** with a product that allows for all important data to be stored into a selected cloud system, with a deletion safety feature that first puts discarded files into a “trash bin” before deleting them permanently from the whole system. This provides a safeguard against the destruction of critical information based on personal or machine error.

Different data types will be allowed within the product in supporting sections of the system. The integrated *Outlook* interface will allow for different types of files to be attached and also accessed from both receiving and sending parties. This allows for quick and easy accessibility and maneuverability of documents within the organization no matter their specific file type.

To mitigate the risk of system downtime due to cloud or internet interruptions, a trustworthy brand of both commercial internet and cloud providers should be deployed for this project such as *AWS* and *Spectrum Business*.

C. Software Development Methodology

C1. Advantages and Disadvantages

Advantages of the Agile Method

Software development utilizing the *Agile* methodology allows for a **flexible**, **iterative**, and **efficient** production of a solution. Flexible - because of the allowance of objectives to be reoriented during development; Iterative - because the product can be put together rapidly, reviewed and then adjusted based on each cycle's outcomes; and Efficient - through the direct focus on iterating on top of viable versions of the product.

Disadvantages of the Agile Method

Development using the *Agile* method can be problematic with the issues of **cost building**, **scope changing**, and **minimal documentation**. Cost building and scope change is an issue with this methodology as the iterative and flexible nature of *Agile* can allow for ongoing development that can expand to include more resource extensive solutions being developed than originally estimated and apportioned. Also with *Agile*, the focus on iterating on product versions can create a scenario where there is less documentation to assist in different processes of studying and use of the product during the development process.

Advantages of The Waterfall Method

Software development utilizing the *Waterfall* methodology allows for **clear structure**, **linear planning**, and **ample documentation** for the production of a solution. This approach has a defined and set structure given by the *Waterfall* model that clearly defines and makes simple the stages of development for the product. This structure also enables linear planning to take place and hold fast the different goals and objectives being worked towards. Also, because of the detailed planning and meticulous work that is done in this method, there comes more documentation of the processes which can be used to look back on as needed after development has completed.

Disadvantages of The Waterfall Method

While clear and direct in structure, the *Waterfall* method hinders development with its nature of being **less adaptive**, **lacking iteration**, and having **less observance to feedback**. Because of the project being fleshed out at the beginning of the development process, there isn't openness to changes as plans progress. Also, with the liner design, there isn't an adherence to feedback that can emerge as designs are realized. This lack of leveraging feedback and refraining from iterating causes a nonadaptive approach that can leave the product seeming inapt to a customer.

C2. Best suited

The superior development method for this proposal is *Agile*.

This approach towards the development process will provide a structure that is flexible and interactive to feedback and change; a critical characteristic for the making of an efficient and ergonomic solution for **MJ Logistics Gaming Company**.

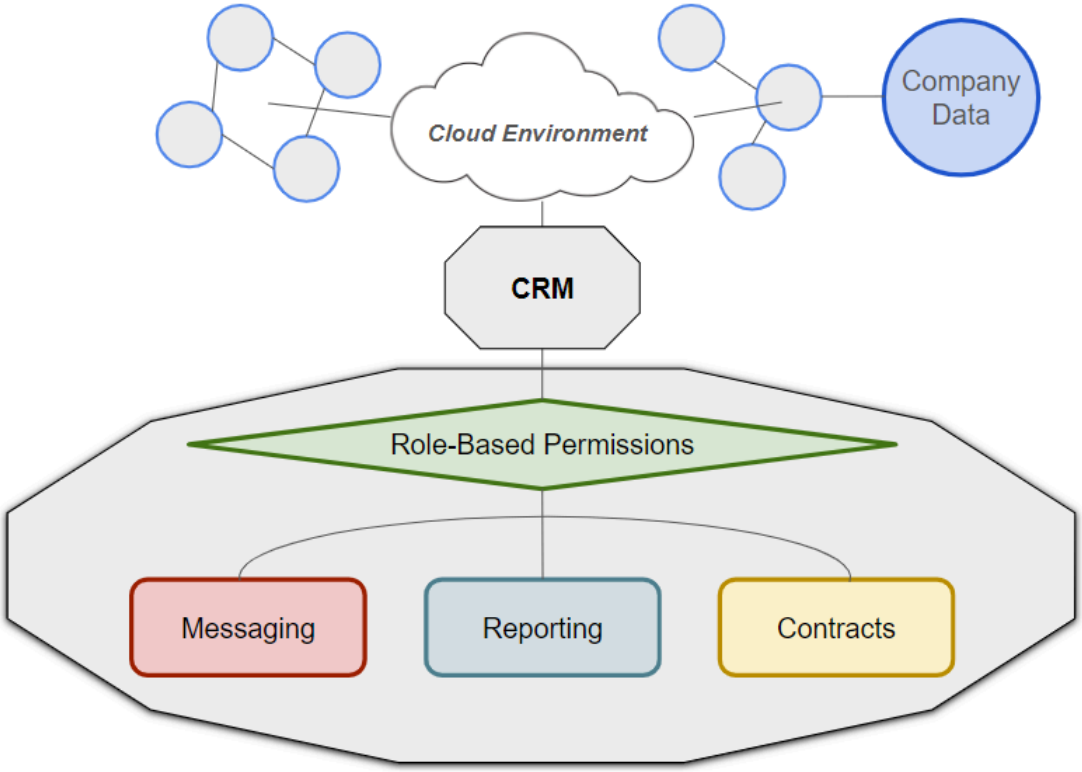
While the *Waterfall* method allows for a clear structure and linear approach, **A.T. Technologies** desire primos that the product be interactive and include the customer in decision making and orientation of the product's outcomes. To keep the aspect of clarity of outcomes that is often provided with *Waterfall* more than *Agile*, **A.T. Technologies** provides this proposal document, as well as our reputation of meticulous product development, as a testament to our focus on definitive structures supporting production. Tandem to this, the scope and thus cost is mindfully considered in our operations, thus pairing *Agile* flexibility with *Waterfall* certainty.

With *Agile*, an adaptive and iterative approach with feedback will enable us to make a product that intimately caters to **MJ Logistics Gaming Company** by acting upon their opinions while development is underway. For example, if the customer doesn't believe that our UI design is user friendly as expected, then they will be able to have immediate critiquing of the product and changes can be made that iteration, which is not possible with the *Waterfall* method.

D. Software solution representations

D1. Representation 1

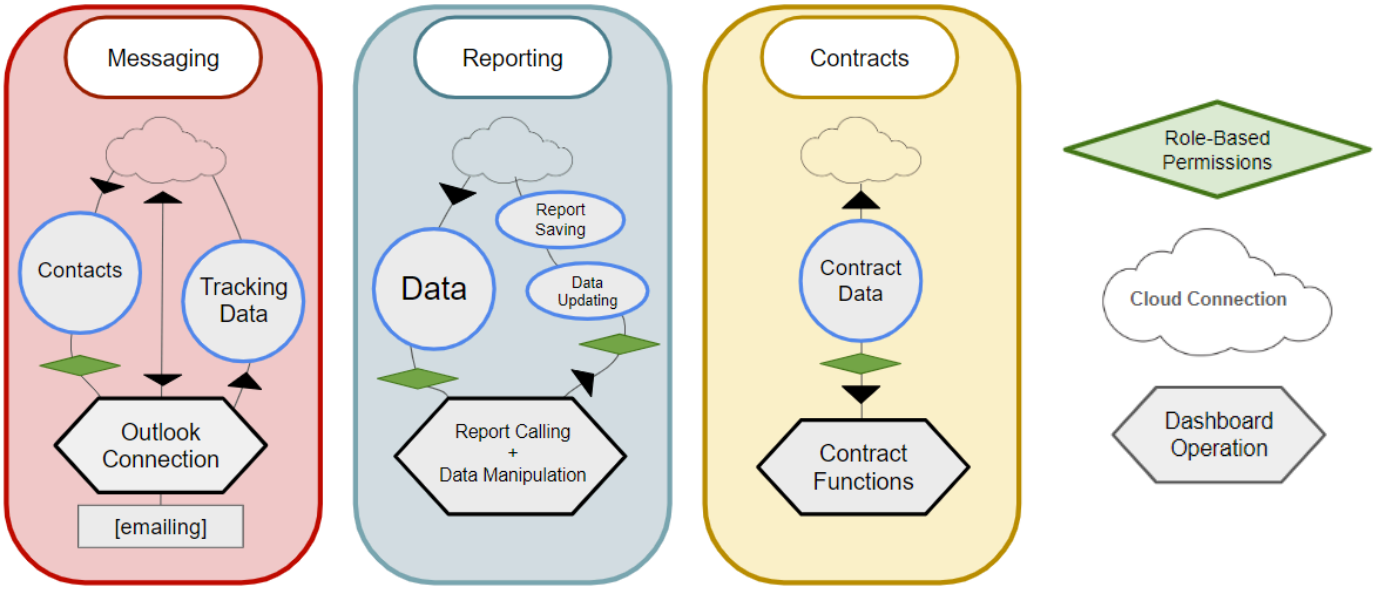
Overview Model



*This model provides an overview of the CRM solution that **A.T. Technologies** is proposing. With the cloud supporting the overall architecture of the program, this product and its functions will be made available to allowed parties no matter where they can connect securely from. The operations of this solution will be able to be performed by **MJ Logistics Gaming Company** accounts that are restricted to certain assignable internal roles.*

D2. Representation 2

Dashboard Operations Model



*This model provides an overarching perspective on the functions that make up the key CRM operations of **messaging**, **reporting**, and **contract management**. For messaging, the user connects to Microsoft Outlook via the **ErgoS** dashboard, and is able to use permission based contacts from the company cloud servers for messaging. Reporting lets the user access certain data and perform readable reports of it. These reports can then in turn be saved back into the cloud servers to be later accessed and assessed. Contracts are able to be created and manipulated via a contracts tab on the user dashboard. This function also uses role-based permissions.*

E. Testing

Contract Life-Cycle Test

Requirement to be tested:

***CRM* Contract Life-Cycle:**

- Company User functions
- Contract Making
- Messaging (sharing details of contract to all parties)
- Contract Completion

Preconditions that must be present before the test case can successfully run:

The program must be created and implemented into a viable cloud system. The conditions of a company user must be set and the connection to the *CRM* must be established from their perspective (company computer, company user account, secure company internet connection).

Steps the tester must execute to test the feature:

1. Company user must sign into ***ErgoS.***
2. User must navigate to the "*Contracts*" section of the *CRM* dashboard.
3. User must create a contract and detail it.
4. *(User must fulfill contract)*
5. User marks the contract as "Complete" (which closes the contract and sends it to the data archive).

Expected results and possible side effects:

ErgoS will be opened by the user, the contract will be able to be started and the user will be able to add details to it. The outlook messaging system will work and will be used to send contract information between all parties. The contract will be able to be set to "Complete" and its information stored in the company database.

Side effects might include malfunctions of the contract process that keeps it from being managed properly, in terms of creating, detailing, completion, and saving. Another possible error might come through the messaging system where messages aren't sent or delivered properly. These outcomes would be solved by the **A.T. Technologies** team promptly.

Pass/Fail determination:

The ***Contract Life-Cycle*** is assessed to be complete when all functions perform as outlined above. Namely, it passes when its requirements of using ***ErgoS*** to create and detail a contract, using the Microsoft Outlook connection through ***ErgoS*** to send and receive communications regarding the contract between all parties, and setting and saving the contract as "Complete" all are observed to work nominally. A failure would consist of the side effects aforementioned in the above section.

Admin Control Test
Requirement to be tested: Admin is able to view and manage **logs**, **data**, and **user accounts**.
Preconditions that must be present before the test case can successfully run: The program must be created and implemented into a viable cloud system. The conditions of a company admin user must be set and the connection to the *CRM* must be established from their perspective (company computer, company admin user account, secure company internet connection).
Steps the tester must execute to test the feature: 1. Company admin user must sign into ***ErgoS.*** 2. Admin must navigate to the database access point within ***ErgoS***. 3. Admin must navigate to desired logs and data to make sure they're accessible. 4. Admin must navigate to the "User Management" section of ***Ergos***. 5. Admin must create, assign a role, and delete a user to test program results.
Expected results and possible side effects: ***ErgoS*** will be opened by the admin user and they will be able to access the database. The admin will be able to find the logs and data saved within the system. The admin will then be able to navigate to the "User Management" section and make a user with proper permissions for accessing and utilizing resources within ***ErgoS***. The admin will then be able to delete this user. Side effects may include the admin perspective not being accessible. The permissions within ErgoS will have to be adjusted within ErgoS if so. Other possible malfunctions include the database access point or "User Management" sections not functioning as intended for the admin user. These outcomes would be solved by the **A.T. Technologies** team promptly.
Pass/Fail determination: The **Admin Control Test** will be evaluated against the success of the above steps and expected outcomes. To pass this test the admin user must properly sign into their ***ErgoS*** admin account and perform the test operations of searching the database for logs and data to check their accessibility to the admin. The "User Management" interface and functionality must also be assessed to see if user account creation, editing, and deletion performs as expected. To constitute a failure, any of the above functionalities must not perform the expected outcome, such as logs and data being unviewable, and users unmanageable.

SYSTEMS SECURITY TEST
Requirement to be tested: Company connection to ***ErgoS*** is secure and this status is confirmed from the security tab.
Preconditions that must be present before the test case can successfully run: The program must be created and implemented into a viable cloud system. The test must use a company authorized device on a company authorized secure internet connection (such as a *VPN*). There also needs to be a second, unauthorized system that attempts to connect to ***ErgoS***.
Steps the tester must execute to test the feature: 1. Make sure that the computer in use is an authorized device. 2. Navigate to the ***ErgoS*** security tab. 3. Attempt to connect to the platform via the unauthorized device. 4. Comfirm in the security tab display that this threat is identified and blocked by the system.
Expected results and possible side effects: ***ErgoS*** will only be accessible via a company computer while using a secure connection, and other attempts will be documented and blocked by the system. The program will not be accessible if the computer being used is not authorized or not made from a secure internet connection. Side effects would include malfunctions allowing unauthorized users to enter into the system or inversely not allowing authorized users properly into the system.
Pass/Fail determination: This **Systems Security Test** will be considered as passed if the secure connection to ***ErgoS*** is properly allowed for authorized devices and their connections, and restricted against those unauthorized for access (triggering a system block that can be viewed by the security tab). Failure of these functions that allow for other outcomes such as unsecured access to ***ErgoS*** or the inability to access the program by authorized connections would be considered as a fail of this test.

F. Sources

MJ Logistics Gaming Company's *"CRM Requirements" document was the sole source for the contents of this proposal. The information within this* ***ErgoS Proposal*** *document was created and catered by the team at* ***A.T. Technologies*** *to answer the company needs outlined therewithin.*