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Prairie Wind IT Modernization

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EXECUTIVE SUMMARY

Our proposal is designed to address the dated IT infrastructure at Prairie Wind Auto Parts. We have identified several key needs that modern IT practices will alleviate.

We have found a need for centralized inventory and sales databases, customer relationship management software, accounting software, new communication practices, and a web presence.

It is our belief that implementation of this proposal will reduce employee operational overhead by cutting down on unnecessary man-hours. Our proposal will significantly reduce the number of staff required to operate and allow the company to rapidly scale, reach new customers, and provide exceptional customer service.

The bulk of our proposal involves the implementation of modern point of sale and inventory systems, entirely replacing the current receipts and DBASE-V databases. Modern point of sale software is able to manage multiple locations; display parts available; and use RFID technology to wirelessly locate stock, perform rapid inventory, and assist in checkout. Purchased items are now automatically adjusted in inventory; orders can be placed on-the-fly; and customers can pay with debit/credit card, cash, and payment apps on their phone (Apple Pay, Google Pay, et cetera). These systems will increase the accuracy and efficiency of inventory management at Prairie Wind.

We additionally recommend updated communication systems using email, Zoom video conferencing, and modern project planning software. Asynchronous communication will further allow employees to optimize their time spent on the clock. Our plan will also drastically reduce call and fax volume to the main warehouse, as databases will be managed over the internet, removing the need to sync DBASE-V between locations over phone/fax.

Our proposal simplifies the accounting, tax, payroll, and HR process at Prairie Wind by replacing the existing Lotus 1-2-3 spreadsheet system with QuickBooks as well as QuickBooks Payroll and HR. QuickBooks provides HR tools including an employee portal, automatic payroll, 1099, 401k, and more. QuickBooks will also allow generation of relevant commercial tax forms and financial reporting for use by management.

We have included a plan to develop a website and eCommerce store that will allow Prairie Wind to reach additional customers outside of operating hours, as well as check part availability and place orders without the intervention of any employees. We additionally detail our plan to implement network hardware and modern computers at each retail location for use by employees to fulfill the new software requirements. Furthermore, we touch on a plan to optimize and track deliveries from the warehouse via truck management software and a kit to install on each truck.

We have outlined the costs, potential risks and mitigations, as well as a plan to implement and an implementation timeline for each section of this proposal.

COMPANY BACKGROUND

Prairie Wind Auto Parts is a privately-held, 80-year-old automobile parts firm with seven locations in the Chicago area.

Prairie Wind Auto Parts has two stores in Chicago; one in Bucktown and the original store on the Near South Side, a few blocks south of Roosevelt Road.

Suburban locations are in Midlothian, Niles, Bloomingdale, Westmont and Romeoville. There is some warehouse space at the Near South Side, but the main warehouse and the trucks were moved to the Niles location in 1973.

The firm is owned by Herman P. Schmedly and his son Struther Schmedly. Herman (“Herm”) Schmedly began working at the firm in 1968, at the age of 13.

CURRENT IT ENVIRONMENT

The current IT infrastructure at Prairie Wind Auto Parts is severely behind competitors. This section of our proposal will review the current environment of the IT and assess points of failure. The next section, the Needs Assessment, will dive into specific needs that will be addressed and implemented in this proposal.

Hardware and Network

Prairie Wind has limited IT hardware resources, having only one DOS-era computer per location running DBASE-V and Lotus 1-2-3. Cash registers are not connected to any computers. Each location has a phone and a fax machine.

As of now Prairie Wind Auto Parts has no network (internet) infrastructure. None of the software or IT infrastructure used by Prairie Wind requires a network connection. Communication between systems is done manually.

Communication

Communication between these stores and warehouses is through phone and fax. This is also the form in which orders are taken. This also includes urgent orders from vendors that are often not included in the database. This is a large concern in the security and tracking of packages that are important to vendors and customers.

Using only phone or fax for communication has several key disadvantages:

- **Low Efficiency** - Both forms of communication are time consuming and require manual labor.
- **High Error Potential** - It's a lot easier to make errors when data is input data by hand.
- **No Automatic Tracking** - If done by fax, papers can be lost. If completed via phone, miscommunication can happen and lead to loss of a package.
- **High Cost** - Having to replenish fax machines paper and ink which will lead to extra cost.
- **User Experience** - It can also be harder for new employees to use a fax machine and time consuming.
- **Limited Time Accessibility** - When using this form of communication there will not be a 24/7 way for customers to call or place an order without paying staff to answer phones.

Software

DBASE-V

All locations have a local DBASE-V database running on MS-DOS. MS-DOS (Microsoft Disk Operating System) provides a basic interface between the user and hardware. It allows tracking and managing data being interred. DOS is not used in almost any modern software ecosystem and does not support the applications we recommend, including Google Chrome, our communication suite, or any modern software for that matter. This makes it difficult for Prairie Wind Auto Parts to scale and limits its capabilities when compared to newer software.

DBASE-V has many limitations that make it unfit for modern IT:

- **Limited SQL Support** - SQL is a key standard in modern databases, meaning DBASE-V is not compatible with even the most universal of database management libraries/software.
- **Lack of Secondary Indexes** - This makes query times longer overall.
- **No XML or JSON Support** - XML and JSON are common data object formats used in inter-application communication. Not being able to communicate in these formats makes DBASE require more specialized software.
- **Limited Transaction Support** - Transactions make databases less susceptible to data inconsistencies and prevent invalid schemas from forming during concurrent actions.
- **Limited Concurrency** - Concurrency allows data to be accessed and edited from multiple places at the same time. Not having this reduces the scale and usability of the database.

Lotus 1-2-3

The accounting system used at Prairie Wind Auto Parts is a custom Lotus 1-2-3 spreadsheet. Lotus 1-2-3 is a spreadsheet program which mainly does spreadsheet calculations, serves as a database, and displays graphical charts. While a good system for the current setup, it is outdated technology that has limited features and integration capability when compared to modern software. It also has several data security concerns due to its age and a large learning curve for new users.

The system is not connected to any computer infrastructure or cash registers. All receipts are tallied and tracked by hand. The system has several weaknesses when it comes to tracking inventory and finance, due to possible human error.

Missing Infrastructure

Prairie Wind Auto Parts is missing several possible additions to its IT ensemble. In the time since the establishment of the current IT environment, several developments in software have been made to allow more efficient operations. These potential additions will be addressed in the Needs Assessment.

NEEDS ASSESSMENT

Prairie Wind Auto Parts is currently sub-optimally efficient due to dated architecture - the following issues must be addressed in order to meet the needs of the company and allow it to grow. This section will outline the specific IT needs that our proposal will address.

Lack of Accessible Centralized Inventory Management

Prairie Wind lacks a centralized system for managing inventory, leading to operational deficiencies when inventory is not on-site. Prairie Wind has limited ability to analyze high-flow inventory and organize orders at an inter-store level. This affects the company's ability to grow and increase efficiency at scale.

A system for determining what inventory is currently present in *any* store would allow Prairie Wind to optimize their inventory management, and spend less labor hours managing inventory. If one store does not have a part on-hand, it could be delivered from another in the area, increasing customer satisfaction and decreasing delivery times.

When Prairie Wind receives an urgent order, they should already have a part at one of their stores. If they do not have the part, then Prairie Wind needs to be able to have a record of the sale if sent directly from the vendor. This is relevant for accounting and tax purposes.

Manually entering part numbers in any case is cumbersome and subject to human error, so **Prairie Wind should also utilize a system to determine and enter part numbers into the central database efficiently (e.g. barcodes)**. This will also reduce the time spent managing database entries between stores and the warehouse - as the data will be immediately available in the central database via the internet.

Lack of Accessible Centralized Sales Database

Prairie Wind Auto Parts spends significant time managing receipts and performing data entry into Lotus 1-2-3. Receipts being tallied by hand or entered into a database by hand are subject to human error, and require additional cost in labor. **Prairie Wind requires a system to streamline the process from point-of-sale to accounting records.** This has the perk of allowing Prairie Wind to manage customer relationships by keeping track of past sales.

Prairie Wind should implement a computerized Point-Of-Sale system that automatically inserts orders into a centralized database. This would allow stores to create relevant accounting reports in minutes, and remove all time spent tallying receipts and entering data into Lotus 1-2-3. It would also reduce inefficiencies from needing to use Lotus 1-2-3 and the database on the same computer at the same time. A networked database would allow stores to look up orders from other stores and assist customers with their orders at any location.

Customer Relationship Management

Having a sales database also allows for customer relationship management software to be utilized, allowing further business opportunities between customers and stores to be formed. This allows rewards programs, gift cards, and discount codes to be utilized; potentially increasing sales.

Modern Accounting

While Lotus 1-2-3 was formerly the de-facto standard for computerized accounting, significant advances in computerized accounting have been made. The process can be drastically simplified upon implementation of a centralized sales and inventory database. The company can very easily tally sales, orders, and other income and expense details stored within the database to prepare financial statements. **Implementation of a modern report generation system from the database - as well as modern accounting software** will allow Prairie Wind to reduce time spent preparing tax statements and determining earnings/expenses and increase overall efficiency.

Unnecessary/Inefficient Communications

Because Prairie Wind Auto Parts manages orders between stores via phone and fax, Prairie Wind must often manage the phone and enter orders into the database from multiple locations. This means that only one order can functionally enter an order into the database at a time, increasing

waiting times for workers at each location. If orders are sent via fax, significant amounts of paper and ink are wasted, and extra space and labor is required to file or dispose of faxes.

An automated inventory management system would remove the need to communicate orders directly to a person via phone - instead, it would be handled automatically by the computer system over the internet.

After the phone lines are freed, they can be used for only the most urgent of contact, where someone on the other end is needed immediately. Otherwise, **non-urgent communications may take place over an asynchronous method** (text / email). This frees working time to assist customers and manage the store, and allows for responses to be issued directly when results are available while removing the need to have someone answer a phone immediately.

No Web Presence

Modern commerce is driven through the internet. Many shoppers begin by searching for the item they are looking to purchase online. Because the primary sales-base of Prairie Wind is people urgently in need of a car part within their immediate area, it is likely that they will first discover Prairie Wind through a map service such as Google Maps. These serve as a key location to bring customers into the store virtually. Front and center is usually a business' website.

Currently, Prairie Wind does not have any web presence, likely only having a phone number available. This could put off potential customers, as they may be looking outside of normal business hours or unsure if a part is available.

Creating a web presence allows customers to interact with the store outside of business hours - even determining things such as item price and availability without any outside assistance.

This would likely increase sales and bring in new customers.

Furthermore, accepting orders online through a website would reduce time spent on checkout in the store and increase customer satisfaction through newfound convenience.

PROPOSED IT INFRASTRUCTURE

Point of Sale

Point of Sale Software

Lightspeed's Point of Sale is central to the operations of our proposal for Prairie Wind's modernization. It replaces Lotus 1-2-3 and implements a centralized, inter-location sales record. The PoS database will significantly streamline the accounting process and record sales across all locations seamlessly.

Lightspeed is cloud-based software designed to seamlessly replace and integrate existing solutions. Employees will not need to know any technical details about the internals of DBASE or Lotus 1-2-3, instead training is provided on Lightspeed's various tools which are designed to be used by employees, not legacy computer users.

When all sales are automatically entered into the database, inventory can be automatically adjusted and re-ordering plans can be easily created for each store by analyzing what stock is being sold. Because sales are stored in an easily accessible database that includes the price paid at the register, Lightspeed can generate reports for use by accounting software to make financial and tax reports, eliminating all time spent tallying receipts and entering them into Lotus 1-2-3. This also drastically reduces the capacity for human error.

Key features of Lightspeed PoS include:

- **Multi-Location Management** - Oversee all aspects of stores and sales from a single source with Lightspeed's centralized solution. Replicate workflows and tasks for multiple locations.
- **Advanced Reporting** - Make data-based decisions with confidence, advanced reporting is constantly gathering information and running reports. Monitor sales and inventory trends, analyzing shopping behavior.
- **Open API and Integration Options** - The ability to build custom integrations and workflows for the specific needs of each location. Integration with Lightspeed partners that can fulfill unique services.
- **Popular and Functional Platform** - Lightspeed is used by thousands of businesses and has support staff and dedicated training, making any transition smooth. If a problem is found, Prairie Wind can rely on their staff and a worldwide community to solve it as well.

Point of Sale Hardware

Each location will need one set of point of sale (PoS) hardware to enhance the shopping experience of their customers, more sets can be purchased later on if a location sees higher traffic. This hardware includes payment terminals, receipt printers, and barcode scanners. This hardware is listed to be compatible with our PoS software, Lightspeed, and thus ensures seamless integration with our point of sale system and inventory management. Our proposed

PoS hardware will also include customer facing displays (CFD), computers, and employee monitors.

Aside from this hardware, products will also be tagged with Sentiron RFID tags to optimize inventory tracking and organizing. Because of this, a Zebra RFID label printer will be needed at the Prairie Wind Auto Parts warehouse in order to optimize tagging for the store locations. More details on RFID tagging and how we propose to use it is explained later on in this proposal.

A full table of the proposed **per location** PoS hardware is as follows:

Item	Purpose	#
Voyager 1250G	Barcode Scanner	1
TM-T88VI	Receipt Printer	1
Vasario VB320-BL1915	Cash Drawer	1
Zebra ZD500R UHF RFID Printer	RFID Label Printer	1
Verifone MX-915	Payment terminal	1

Transaction monitors, computers, and CFDs will use the same hardware as proposed for personal computing later on in this proposal on page 19.

Customer Relationship Management

Lightspeed only includes simple customer loyalty plans. However, it allows the integration of many different services to better fit their customers' needs, one being customer relationship management (CRM).

Prairie Wind Auto Parts lacks a management system for its customers. Having a new web presence and implementing CRM software into your core business can improve customer experience and create business opportunities between existing and new customers at all locations.

Podium, our recommendation to Prairie Wind, allows direct customer communication and can be sorted into custom categories such as inbound and outbound sales, billing, customer, and

experiences. Podium also collects customer details and activity, saving reviews and timeline conversations.

With Podium, any number of employees can manage the CRM anytime. Prairie Wind employees who use Podium can directly access a central hub for all customer and company data. Podium is able to integrate with and complement Lightspeed's features. While Lightspeed does include basic CRM features, we found that it did not have several key features including contacting customers directly and other tools to increase engagement.

Key features of Podium CRM include:

- **Simplified Communication** - Podium's platform allows one-on-one communication with customers with a centralized inbox of all conversations and the ability to call customers from anywhere. This will streamline communication and data management between stores and customers
- **Customer Engagement** - Customer profiles for every interaction automatically send customers, review invitations, and surveys after every purchase. A CRM will bridge the gap between sales and marketing departments.
- **Time-efficiency** - Manage customers from a desktop or mobile app and find AI assistants to reply to customers during high operation or closed hours. Employees from different stores or departments can access relevant information about the customer to better understand and assist the customer.

Inventory

Lightspeed's inventory system will optimize Prairie Wind Auto Parts' existing inventory so that it can be tracked and organized more efficiently. It will reduce the time spent managing and looking through inventory between stores and warehouses, and a centralized system will allow every item to be accounted for.

Senitron RFID Solutions integration

RFID is an all-in-one software for printing, encoding, tracking, and inventorying assets. Prairie Wind Auto Parts locations and warehouses will get a Senitron RFID scanner and printer. RFID tags are a type of tracking system that uses radio frequency to search, identify, track, and communicate information with items and people wirelessly and without the precision aiming required of optical barcode scanners. The tags we intend to use at Prairie Wind Auto Parts will use a Zebra RFID printer that will track barcode information on a label.

Senitron integration with Lightspeed allows easy printing and generation of tags for inventory entered through Lightspeed. RFID tags allow for easy tracking of assets and inventory as long as the item passes through a warehouse or store and is tagged by an employee. Employees can tag items with the Zebra RFID printer and can scan items with the same scanners at the locations.

Why Senitron RFID?

With the Senitron RFID tag, it works seamlessly with Lightspeed. The tags have two uses, as they can be scanned into Lightspeed's inventory with the RFID tag - the same tag can be scanned for sale through Lightspeed at the registers optically or with an RFID scanner for inventory tracking.

RFID tags solve Prairie Wind's inventory management needs, tracking assets in transport and at stores and warehouses. These tags will be tracked within locations for urgent orders if tagged. Because locations can locate tags wirelessly without the need to fiddle with optical scanning, it is very hard to lose track of inventory as long as it is near a scanner.

With Lightspeed, Prairie Wind Auto Parts can better track part orders from vendors. Adding all product vendors to Lightspeed, parts can be ordered and seen in inventory. Lightspeed will also show each product's default cost and markup percentage.

With Lightspeed and Senitron, inventory levels and unique serial numbers of each item within Prairie Wind locations are accessible from the Lightspeed's inventory tab. An employee will be able to see low-stock items and be able to directly order from Lightspeed's built-in purchases. This inventory management system gives Prairie Wind Auto Parts the ability to ensure high-flow inventory from vendor to warehouse to stores in an organized, accurate, and efficient manner.

eCommerce

Prairie Wind Auto Parts recognizes the need for an e-commerce platform. The platform is important because it will allow the company to improve its customer experience, expand its market, and compete with other automotive parts industries.

After careful consideration, our team recommends using Lightspeed's e-commerce solution. Lightspeed offers several features that will enhance the experience of customers when it is integrated into the Prairie Wind Auto Parts' website.

These Lightspeed eCommerce features are solutions to key problems:

- **Unified Management** - Lightspeed's e-commerce platform integrates seamlessly with the existing Lightspeed R-Series, providing a unified system for managing online and in-store sales. Orders will appear in accounting integrations, adjust inventory automatically, and track customer history.

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- **Product Catalog Management** - Effortlessly manage and update the extensive catalog of products across all locations from a centralized platform. This catalog will allow customers to review parts available at any time.
 - **Order Processing** - Orders will process automatically which will ensure they are more accurate and efficient when dispatched to customers.
 - **Customer Engagement and CRM Integration** - Enhance customer engagement through personalized shopping experiences, promotions, and targeted marketing campaigns.

Data Management and Analytics

In order to ensure government compliance, enable company functions, and protect company data, we propose using the following software to Prairie Wind Auto Parts: **Microsoft Azure**.

Microsoft Azure holds a multitude of different programs and products that help facilitate functions in a business, including file processing, scalable web API hosting, data migration, notifications hubs, and so much more. Azure also offers connections to azure certified experts that can walk Prairie Wind Auto Parts through the process of picking out the right services.

As a data management tool, Azure offers cloud based data storage, data analytics, and data classification. Cloud based data storage will increase cost efficiency by removing the need to purchase, store, and maintain data servers every five years. It will also remove the risk of losing data to natural disasters or emergencies because the businesses data will be stored and backed up in Microsoft data centers. Data analytics will allow the company to understand how their data is being used and processed, helping employees understand what areas they may need to improve in. Data classification allows employees to know exactly how sensitive a piece of data is, reducing the chances of data leaks and increasing security. Microsoft Azure, as a pay by use software, will only bill based on what products and functions of Azure are used. This scalable billing makes it a very accessible solution for a growing small business.

This software integrates well with our proposed communications solution, **Microsoft 365**, and offers a fast and easy data migration from DBASE-V with the use of Azure Data Factory. Because of the cloud based storage, this solution also integrates seamlessly with our new proposed hardware, ensuring consistent data throughout all locations.

Website

A nicely designed and user-friendly website is important for Prairie Wind Auto Parts to create a strong online presence. The website will be the main interface for customers to explore products, place orders, and engage with the brand. To create the website, we plan to utilize the expertise of Ankit P. Ankit is a seasoned web designer and developer with a large background in creating innovative solutions for businesses. He freelances on UpWork.com and brings a wealth of experience, having worked with renowned entities such as OpenAI, Zapier, Shopify, and most importantly Lightspeed.

Website Development Strategy

- **Responsive Design** - We will develop a website that adapts easily to devices like desktops, tablets, and mobile phones so that customers can have an easy viewing experience.
- **User-friendly Navigation** - Implementing easy navigation will make it very easy for customers to explore our product catalog and find the products they need.
- **Integration with Lightspeed eCommerce** - By integrating our website with the Lightspeed eCommerce platform we ensure real-time inventory updates, consistent pricing information, and synchronized order processing.
- **Secure Online Transactions** - We prioritize customer data security by implementing measures during transactions to create trust and confidence in their shopping experience.

Why Ankit P?

- **Proven Track Record** - Ankit possesses knowledge of e-commerce platforms making him well-suited to customize the online shopping experience according to the requirements of Prairie Wind Auto Parts. He is very qualified with his bachelor's in computer science, over 500+ projects he has completed, and a 99% job success rate.
- **E-commerce Mastery** - With a deep understanding of e-commerce platforms, Ankit is well-equipped to tailor the online shopping experience to meet the unique needs of Prairie Wind Auto Parts. He has experience in website customization, e-commerce websites, PayPal, HTML, CSS, JavaScript, Lightspeed, databases, and a wide variety of additional skills.

By adopting Lightspeed's e-commerce solution and collaborating with Ankit on building a user-friendly website Prairie Wind Auto Parts can position itself for success in the marketplace.

Collaboration

Communication is very important to create a modernized IT infrastructure. It facilitates internal collaboration and enhances customer interaction and satisfaction. In light of Prairie Wind Auto Parts' unique operational structure and challenges, the proposed communication system aims to seamlessly integrate across its seven locations, ensuring efficient internal collaboration and enhanced customer interaction.

Email and Collaboration Tools

Considering the current absence of email and collaboration tools, implementing Microsoft Office 365 will transform internal communication. It will enable efficient document sharing and collaboration, bridging the communication gap among the stores.

Video Conferencing

Given the diverse geographical spread of Prairie Wind Auto Parts, the introduction of Zoom as a video conferencing solution will facilitate virtual meetings, especially beneficial for communicating with the main warehouse in Niles. This tool ensures real-time communication and collaboration across all locations, addressing the limitations of the current telephone and fax communication system.

Project Management and Collaboration

To enhance project management and collaboration, Atlassian's suite of tools, including Jira and Confluence, can be seamlessly integrated. This will provide a centralized platform for tracking projects and sharing crucial information, improving overall efficiency and organization, which is particularly vital for the warehouse and dispatch coordination.

VoIP Solutions

Integrating a VoIP solution such as Cisco Webex Calling will modernize communication channels between the stores and the main office. This will not only reduce communication costs but also enhance flexibility, crucial for Prairie Wind Auto Parts' operational structure.

Integration with CRM and Inventory Management

To streamline operations, integrating communication tools with CRM systems like Lightspeed and inventory management databases is paramount. This integration will ensure real-time updates on inventory levels, customer interactions, and dispatch details, fostering efficient decision-making and reducing the reliance on fax and phone orders.

Data Security Measures

Data security is crucial, especially as Prairie Wind Auto Parts transitions into a more interconnected IT infrastructure. Secure communication protocols, encryption measures, and regular security audits will protect customer and company data, mitigating potential risks associated with modernization.

By implementing these communication solutions, Prairie Wind Auto Parts can undergo a seamless transition into a 21st-century IT infrastructure, leveraging its substantial cash reserve to create a more efficient and competitive business model. The proposed tools are tailored to address the specific needs of the company, ensuring adaptability and scalability for future growth.

Accounting

In order for our firm to bring Prairie Wind Auto Parts up to current standards and prepare them for destined technological advances, it is a necessity that we upgrade their accounting software. Currently, Prairie Wind's accounting is done via manual entry into a Lotus 1-2-3 spreadsheet. This is a very outdated process and uses employees' valuable time which could be put to more pressing matters for the company. To bring Prairie Wind's accounting software up to date, we have chosen Quickbooks Advanced by Intuit. Intuit Quickbooks will allow Prairie Wind Auto Parts accounting to seamlessly integrate with the chosen Lightspeed point of sale system - sales data can be automatically imported into QuickBooks. Moreover, Intuit offers a payroll system which is easily integrated into Quickbooks and will be able to handle all of the employee payroll.

Along with these software integrations, Quickbooks Advanced offers many extra features which will help the company with business analysis and other functions, such as tax deductions, invoice and payments, cash flow, sales and sales tax, inventory, and data restoration. With these advanced features and integration offered by Quickbooks Advanced, Prairie Wind Auto Parts will be able to easily handle accounting and other functions in the company by streamlining the process from the selected PoS systems to the accounting software.

Human Resources & Payroll

Our firm recommends QuickBooks Payroll. This recommendation aims to address the gap in Prairie Wind's payroll management systems. QuickBooks Payroll has several services depending on what kind of plan we are looking for, but the best for the company would be the "QuickBooks Payroll Premium" plan. It has an auto payroll with 24/7 expert product support while also

providing a HR support center. It also has a great integration with Quickbooks, making it simple to prepare accounting reports including payroll data. The software would reduce the amount of labor required to manage payroll, collect accounting data, and furthers the organization and accessibility of data. It serves as an employee portal and central tool for all things HR, reducing the workload of HR employees at Prairie Wind.

Here are some of the features of QuickBooks Payroll:

- Auto Payroll
- 1099 E-File & Pay
- Expert product support
- Next-day direct deposit
- Employee portal
- Track income & expenses
- 401(k) plans
- Workers' comp administration
- Capture & organize receipts
- Maximize tax deductions
- Invoice & accept payments
- Track miles
- Run general reports
- Send estimates
- Track sales & sales tax
- Manage 1099 contractors

Logistics & Distribution

Our firm recommends the Omnitrac's IVG ELD Premium plan for monitoring the fleet of trucks for Prairie Wind Auto parts. After careful consideration we recommend getting both the Omnitrac's IVG ELD Kit and the Omnitrac's IVG ELD Premium plan.

While the hardware; Omnitrac's IVG ELD Kit is a separate cost, it will only be a one time payment per vehicle. The kit is an easy to install unit in the dashboard of the driver. It provides GPS and routing information to the driver. Our reason for the selection of the Premium plan is for performance monitoring, critical event reporting, driver workflows, and fault reporting. All of which can be used for future reference when creating a time scale and for transportation, while also making the job of the driver simpler and more efficient. It also eliminates concern over data

management of a vehicle when inspected and/or fixed. Problems can be easily spotted with the diagnostics, while also providing information for proof of failure or damage.

Some key abilities of the Omnitracs IVG ELD Premium plan are as follows:

- HOS compliant (North America)
- Customizable by company policy
- Proventil Violation system
- Auto login
- Communication ability to other drivers
- On-The-Go Log Viewer
- Driver's annotations
- Schedule Management
- Mobile application system
- Remotely clock in and out
- Track miles
- Run general reports
- Send estimate time of arrival
- 24/7 driver hotline support

By implementing our recommendations for tracking shipment between warehouse and stores, it would not only improve Prairie Wind Auto Parts in safety and security but also give the tools to increase efficiency and transparency. Having the assurance of one's own shipment of product is incredibly useful not only to the company itself but to its customers. Having the ability to see a real time analysis for each shipment can and will help bring the Prairie Wind Auto Parts into the modern era.

Network Infrastructure

Our network infrastructure will include a small office-level internet connection at each retail and warehouse location. Because the network will not be under heavy use, with only around 2-6 devices needing active connections at any time, it does not necessarily need to be large in scale.

This proposal operates under the assumption that Prairie Wind will not significantly change its retail practices to require over 30 connected devices per location actively using the network at a time. We believe this is a reasonable assumption for the next 15 years. All current devices will not have high bandwidth requirements.

We also propose a small, guest-oriented wireless network so guests can use the eCommerce website to browse while in-store, and assist in finding parts at other locations. Each location will also have a small wired network connected to the Point-of-Sale devices and office computers, providing higher reliability and speed to these devices.

Each location will be equipped with an office-level routing device. Our firm recommends the [Netgear RAX10 Router](#), or a similar device. This is because it has both wired and wireless network support, high speeds for modern devices, and would reasonably support network growth within each retail location. In order to connect devices to the router, we recommend a wired connection for key resources such as the point of sale and office computers. This is because wired connections have higher reliability and reduced latency, offering the best customer experience. In order to ensure the reliability and safety of the wiring, we recommend contracting someone to wire ethernet drops in specific areas throughout the retail locations. Because we do not have access to the layout or specific details about each location, we can only offer a cost estimate based on industry standards. If each retail location has a plenum (tiled open-access ceiling), it may be possible to wire throughout the plenum to reduce cost. Otherwise, wiring would be within walls, floor, or cable channels.

The network configuration will be handled automatically by the Netgear RAX10, however we **highly** recommend changing the administrator login for each RAX10, otherwise the network will be extremely vulnerable to attackers. It is also possible to set up more specific parameters such as a guest network for customers to utilize, and configure QoS (quality of service) to ensure that point of sale has network priority at all times.

We recommend a similar network setup for the warehouse, although wireless coverage may need to be extended through the use of multiple access points. This is pending further details about the warehouse locations, however.

Alongside network hardware, each location will require an internet service provider (ISP) that will provide access to the internet. This is vital for the function of point of sale and inter-location communications. This is why we recommend a high-reliability high-uptime commercial plan to ensure service loss is minimal. Because ISP availability varies by location, our firm will work with you to locate the best plan per-location. In general, a plan should offer high uptime and low outages, moderate speed, and moderate to unlimited bandwidth. Speed, as long as it meets a minimum for modern use (around 200-500 megabits per second), is not a large concern due to the minimal requirements at each location. In the Chicago area, [AT&T offers 300Mbps commercial fiber at \\$75/mo](#). We will use this as the basis for our estimates.

Office/Personal Computer Hardware

Personal computing for our proposed IT infrastructure will be the [ThinkCentre Neo 50s Gen 4 Intel SFF](#) from Lenovo, it is a pre-built PC which has a good value of specifications required for business, communication, and productivity. It is easy to use and no building is required since it is

pre-built. This device comes with Wi-Fi and ethernet support, so it will be able to connect to the network seamlessly.

These computers are vital for allowing employees to use the various tools we have recommended in our proposal. This includes managing Lightspeed which covers CRM, payment, eCommerce, inventory, and customer history. Employees will be able to access information about parts at any location, as well as communicate more effectively. Our communication suite is fully supported by our selection, including Zoom, email, and the Atlassian suite.

We have additionally selected the following products for connection with the computers:

- Lenovo [Mouse and Keyboard combo](#)
- Lenovo [Monitor](#)

These computers are the same models that will be utilized to run the Point of Sale software discussed earlier in the proposal.

Cost

Our firm has estimated the cost of each component of our plan, which is summed up in this section.

When deciding on pricing tiers and other cost-related decisions, we have chosen to maximize utility wherever possible while not purchasing more than is necessary. It is up to Prairie Wind to identify where utility may not outweigh cost in the case of paying an employee vs paying for a service. While Lightspeed is very likely to be less expensive or equal to the cost of paying employees to do the job, there are many operational changes that may change the underlying costs of Prairie Wind operations that we cannot account for.

We based our estimations on the assumption that each location has at least one worker spend one hour per day doing tasks that can be automated such as tallying receipts or entering data. As such, we estimate the cost of Prairie Wind's current business practices to be \$27,300 assuming \$15/hr minimum wage, 1hr per work week. This is slightly less than the calculated repeating annual cost, but we have not accounted for other work that will be replaced, such as inventory corrections, HR, and accounting. Therefore, we consider it safe to assume that our proposal at least matches the current expenses.

It is our understanding, however, that Prairie Wind is looking to modernize and increase efficiency rather than reduce expenses, so we have focused accordingly. We also expect this proposal to greatly improve the employee experience at Prairie Wind.

We have prepared an itemized table of the pricing for each element of our proposal:

+ Cost

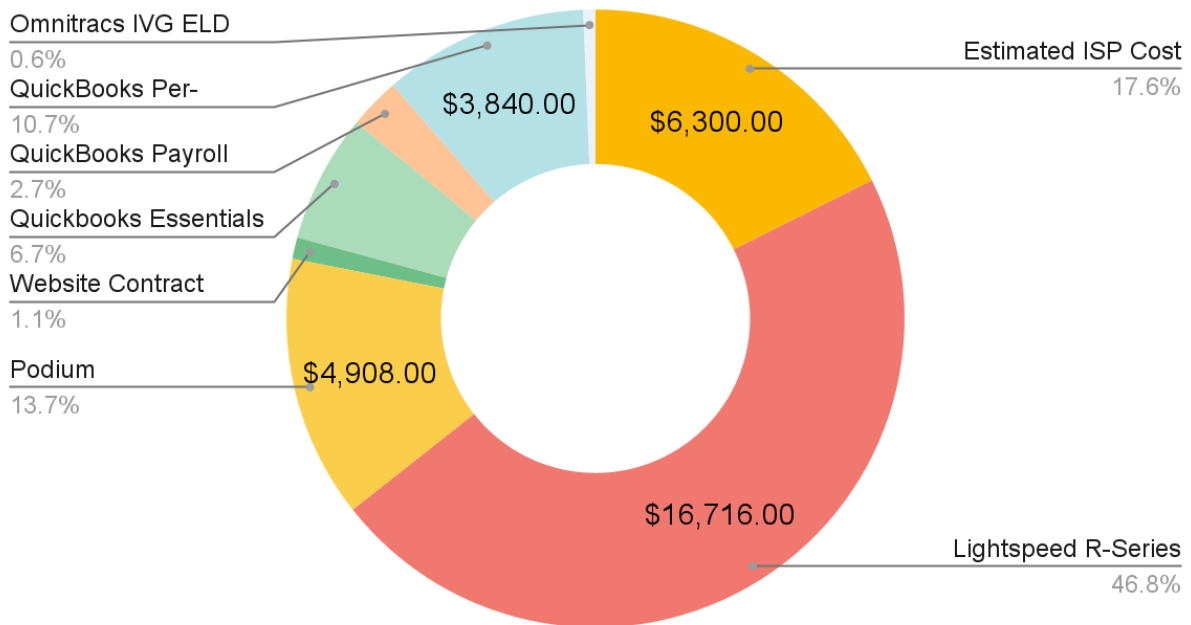
Name	Purpose	Type	Initial Cost	Annual Repeating Cost	Quantity	Per-Location	Total Initial Cost	Total Annual Cost
Netgear RAX10 Router	Network	Hardware	\$154.99	\$0.00	1	Y	\$1,084.93	\$0.00
Estimated Wiring Cost	Network	Service	\$450.00	\$0.00	4	Y	\$12,600.00	\$0.00
Estimated ISP Cost	Network	Service	\$0.00	\$900.00	1	Y	\$0.00	\$6,300.00
ThinkCentre Neo 50s Gen 4 (Intel) SFF Lenovo	Personal Computing & PoS PC	Hardware	\$527.00	\$0.00	2	Y	\$7,378.00	\$0.00
Wired Keyboard & Mouse Combo	Personal Computing & PoS Input	Hardware	\$14.99	\$0.00	2	Y	\$209.86	\$0.00
ThinkVison 23.8 inch Monitor - T24i- 3	Personal Computing, PoS Display, CFD	Hardware	\$119.00	\$0.00	3	Y	\$2,499.00	\$0.00
Estimated Extra Costs (Cables, Manual Labor, Etc.)	PoS Service	Software	\$3,000.00	\$0.00	1	N	\$3,000.00	\$0.00
Lightspeed R-Series	PoS Service	Software	\$0.00	\$16,716.00	1	N	\$0.00	\$16,716.00
Podium	CRM	Software	\$0.00	\$4,908.00	1	N	\$0.00	\$4,908.00
Website Contract	Website/eCommerce	Service	\$1,000.00	\$400.00	1	N	\$1,000.00	\$400.00
Zebra ZD500R UHF RFID Printer	PoS Label Printer / Inventory	Hardware	\$1,350.00	\$0.00	1	Y	\$9,450.00	\$0.00
Voyager 1250G	PoS Barcodes	Hardware	\$68.00	\$0.00	1	Y	\$476.00	\$0.00
TM-T88VI	PoS Receipts	Hardware	\$374.00	\$0.00	1	Y	\$2,618.00	\$0.00
Vasario VB320-BL1915	PoS Cash Drawer	Hardware	\$184.00	\$0.00	1	Y	\$1,288.00	\$0.00
Verifone MX-915	PoS Payment	Hardware	\$285.00	\$0.00	1	Y	\$1,995.00	\$0.00

	Terminal	are						
Quickbooks Essentials	Accounting/HR	Software	\$0.00	\$720.00	1	N	\$0.00	\$2,400.00
QuickBooks Payroll Premium	Payroll/HR	Software	\$0.00	\$960.00	1	N	\$0.00	\$960.00
QuickBooks Per-Employee Cost	Payroll/HR	Software	\$0.00	\$96.00	40	N	\$0.00	\$3,840.00
Omnitracs IVG ELD Premium plan	Logistics/Distribution	Software	\$0.00	\$45.95	5	N	\$0.00	\$229.75
Omnitracs IVG ELD Kit	Logistics/Distribution	Hardware	\$799.00	\$0.00	5	N	\$3,995.00	\$0.00
Zebra MC3330xR RFID Reader Handheld	Inventory	Hardware	\$2,452.96	\$0.00	1	Y	\$17,170.72	\$0.00
Zebra FX7500 RFID Reader Fixed	Inventory	Hardware	\$880.16	\$0.00	1	Y	\$6,161.12	\$0.00
						Total Costs	\$47,593.79	\$35,753.75

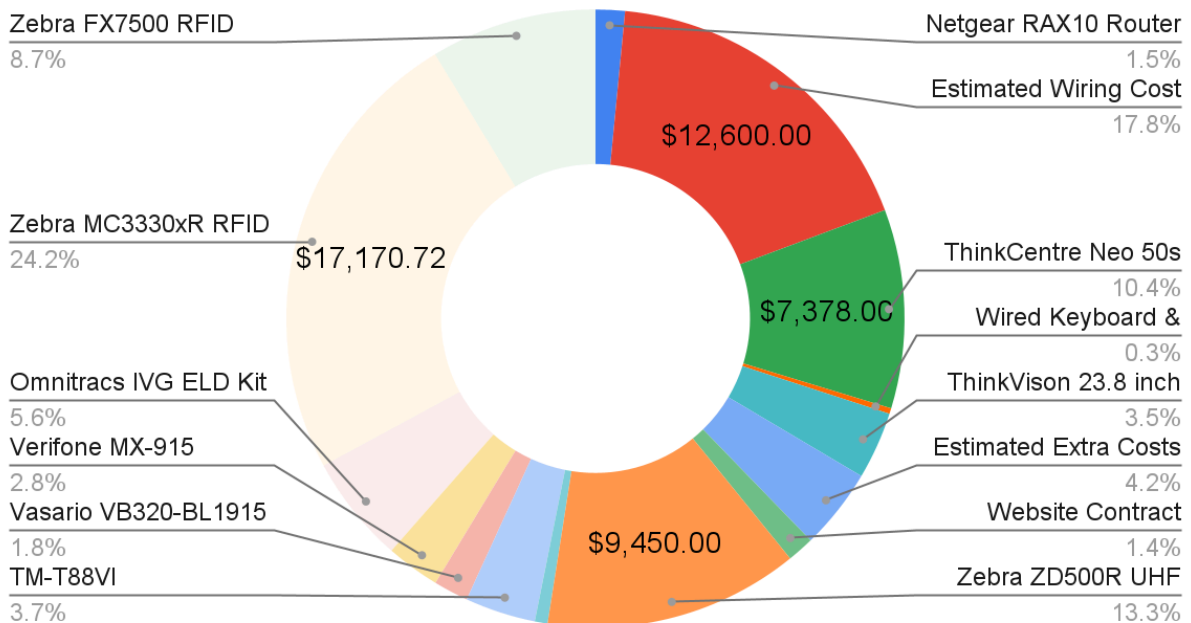
After summing the components of our proposal, we estimate the total initial costs to Prairie Wind at **\$44,593.79** and a repeating annual cost of **\$35,753.75**.

We have included a price breakdown by component for your convenience:

Annual Repeating Cost by Item



Initial Cost by Item



Implementation

Integration plays an important role in ensuring a good IT infrastructure. Our firm has selected a wide variety of software and hardware that will benefit Prairie Winds Infrastructure by bringing their current IT infrastructure into a modern 21st century infrastructure. As Lightspeed has the ability to integrate third party tools, our firm is using the following tools in conjunction with Lightspeed to bring Prairie Wind Auto Parts to the modern IT infrastructure.

What we need for Implementation will be a combination of free webinars and training videos offered by the companies our firm has chosen. All the tools like Cisco Webex (VOiP), Zoom (Communication), Atlassian (Communication), Lightspeed (eCom, POS, R series) Podium (CRM), Quickbooks (Accounting). We recommend having the free online training videos and free webinars for the employees to watch and learn that our firm will provide to ensure a smooth operation for Prairie Wind Auto Parts. Our plan is a weekly plan to implement the tools our firm has recommended: Week 1 - 2: The start of the implementation plan. This will include learning to use Lightspeed's R series. Week 3: Start to Purchase and set up Point of Sale Hardware at register and warehouse. Week 4 Start training employees for using Quickbooks, our accounting software of choice. Week 5: Start watching Webinars and videos for CRM, eCom, and to make sure everything is properly set up for the website, there is a [checklist from Lightspeed](#). This plan our firm has come up with will ensure a clean implementation for the company.

Timeline

Week	Plan
Week 1	Start the 5 week implementation for Lightspeed by watching training videos, contact ISPs for service. Begin contracting wiring installation.
Week 2	Continue Lightspeed implementation plan. Finish wiring installation.
Week 3	Setup PoS hardware at the registers and warehouse, configure network.
Week 4	Start training employees on Quickbooks for accounting
Week 5	Train employees for the Website, CRM, and eCom. Then check to make sure everything is ready to run with the new website using the checklist.

Conclusion

In our proposal we attempt to identify and resolve the operational deficits at Prairie Wind Auto Parts. We focused on modernizing and improving the employee experience at Prairie Wind. Several key issues we identified were: outdated hardware and software systems, high capacity for human error, several important time consuming tasks that can be automated, lack of internet presence, and missing vital IT infrastructure. It is our belief that our proposal addresses these concerns to the best ability of current technology. We have developed a comprehensive analysis of multiple important new aspects of the company including but not limited to: Accounting, Point of Sale, Customer Relationship Management, Inventory, eCommerce, network infrastructure, and last but not least, logistics and distribution.

Prairie Wind Auto Parts' success has relied upon their commitment to customers and service for over 80 years. This is a vision our firm has chosen to represent in our proposal. By implementing our recommendations to Prairie Wind Auto parts, we believe the business will not only be newly functional, effective, and efficient - but *prosperous* in the modern era.

Reference Materials

Cost Spreadsheet:  Cost

Items in the Proposal

Name	Link to Item / Cost
Netgear RAX10 Router	https://www.cdw.com/product/netgear-rax10-wi-fi-6-ieee-802.11ax-ethernet-wireless-router/6407909?pfm=srh
Estimated Wiring Cost	
Estimated ISP Cost	https://www.business.att.com/products/business-fiber-internet.html
ThinkCentre Neo 50s Gen 4 (Intel) SFF Lenovo	https://www.lenovo.com/us/en/p/desktops/thinkcentre/thinkcentre-neo-series/thinkcentre-neo-50s-gen-4-(intel)-sff/12jf000qus
Wired Keyboard & Mouse Combo	https://www.lenovo.com/us/en/p/accessories-and-software/keyboards-and-mice/keyboard-and-mouse-combos/4x30l79883?orgRef=https%3A%2F%2Fwww.google.com%2F&cid=us:sem%7Cse%7Cgoogle%7Cshopping_catch_all%7Cgs_notebooks%7C%7C4X30L79883%7C1341711240%7C52533783823%7Cpla-294930372950%7Cshopping%7Cmix%7Cconsumer&gad_source=1

ThinkVison 23.8 inch Monitor - T24i- 3	https://www.lenovo.com/us/en/p/accessories-and-software/monitors/office/63cfmar1us?orgRef=https%253A%252F%252Fwww.google.com%252E
Estimated Extra Costs (Cables, Manual Labor, Etc.)	
Lightspeed R-Series	https://www.lightspeedhq.com/pos/retail/pricing/
Podium	https://www.podium.com/pricing/
Website Contract	https://www.upwork.com/freelancers/~0142d3f15bc4b315a7?referrer_url_path=%2Fab%2Fprofiles%2Fsearch%2Fdetails%2F~0142d3f15bc4b315a7%2Fprofile
Zebra ZD500R UHF RFID Printer	https://www.amazon.com/Zebra-ZD500R-Printer-Parallel-Ethernet/dp/B01CH0JZBU
Voyager 1250G	https://www.amazon.com/Honeywell-Voyager-1250G-Single-Line-Hand-Held/dp/B005KL6NQY
TM-T88VI	https://www.amazon.com/Epson-C31CE94531-TM-T88VI-Bluetooth-Interfaces/dp/B0728D71RV/ref=sr_1_3?crd=2OR1Z9BVM872&keywords=TM-T88VI&qid=1701277523&s=industrial&sprefix=tm-t88vi%2Cindustrial%2C112&sr=1-3
Vasario VB320-BL1915	https://www.amazon.com/APG-VB320-BL1915-B9-Standard-MultiPRO-Interface/dp/B00PDCZ9CO/ref=sr_1_2?crd=1VKSO8OQ05ZAL&keywords=Vasario+VB320-BL1915&qid=1701277557&s=industrial&sprefix=vasario+vb320-bl1915%2Cindustrial%2C185&sr=1-2
Verifone MX-915	https://www.amazon.com/Verifone-MX915-Multi-Lane-Terminal/dp/B00SBZ98EU
Quickbooks Essentials	https://quickbooks.intuit.com/accounting/#pricingcards
QuickBooks Payroll Premium	https://quickbooks.intuit.com/payroll/software/
QuickBooks Per-Employee Cost	https://quickbooks.intuit.com/payroll/software/
Omnitracs IVG ELD Premium plan	https://eldfocus.com/omnitracs/
Omnitracs IVG ELD Kit	https://thecostguys.com/business/omnitracs-eld
Zebra MC3330xR RFID Reader Handheld	https://www.barcodegiant.com/zebra/part-mc333u-gj3eq4ft.htm?aw&adtype=pla&gad_source=1&gclid=Cj0KCQiA35urBhDCARIsAOU7QwnHYijwnZv6Dk4ZV99EI0x_WQq0Uhj50VRf7vcHR-QhDZouSD8_0DoaAitWEALw_wcB
Zebra FX7500 RFID Reader Fixed	https://www.barcodegiant.com/zebra/part-fx7500-22325a50-wr.htm?aw&adtype=pla&gad_source=1&gclid=Cj0KCQiA35urBhDCARIsAOU7Qwkx_KkOzdPHbSGnpjCV5igA0SLGDfpfn1YG0X9ah3_goClvBEQc2n4aAqjzEALw_wcB

Documentation

- **LightSpeed (5 week plan):**
<https://retail-support.lightspeedhq.com/hc/en-us/articles/360034468493-Getting-started-with-Retail-POS-R-Series->
- **QuickBooks:** <https://quickbooks.intuit.com/learn-support/en-us/>
- **Podium:** <https://www.podium.com/knowledgebase/s/>